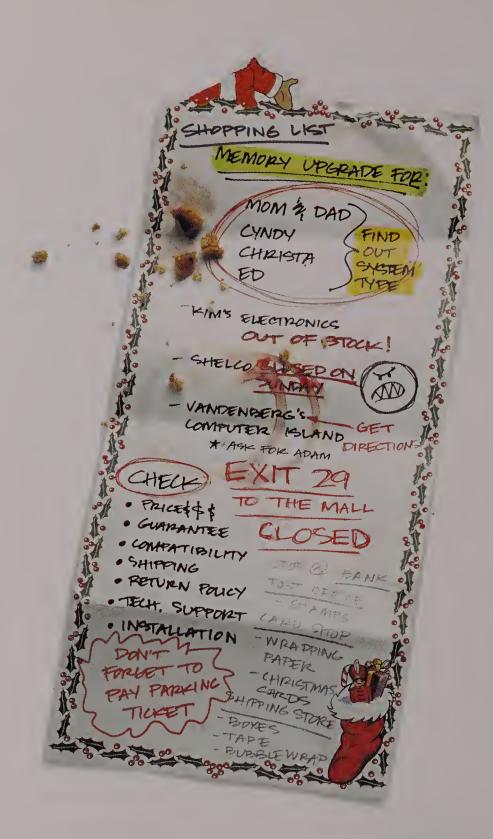


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t's cold. But that's OK, because the constant patter of rain on my Bondi Blue poncho keeps my mind off the cold. However, it's not quite enough to keep my mind off the fact that my toes are soaked and freezing and that I've lost feeling in them. But at least I've had about nine hours to get used to the sensation.

And then, of course, there's the hillside I'm sitting on—the constant rain and the constant milling about of 20,000 feet have turned it into chocolate pudding. But then the next band starts playing—Tom Petty and the Heartbreakers—and everything's OK. Like the last half-dozen bands to play that afternoon, they're great.

As the sound rises and my lawn chair sinks further into the mud and another accidental bodysurfer skids past me, I remind myself it's all for a good cause. Because this is more than a regular concert—it's a charity concert, benefiting the Bridge School, a local school for children with severe communication disorders.

Caring and Sharing

Standing there in the rain got me thinking about charity. This last year has been especially good to me, as it has to much of the Mac world. And I've begun to develop a real appreciation for exactly how good it can feel to give back to your community when your community has given you so much.

Donating your time, sharing of your knowledge, contributing your old equipment, even doing something as simple as taking a walk, all these things can help others and give you a real sense of accomplishment. Mac users like to think of themselves as being slightly more evolved. Well, nothing could be more evolved than to give of yourself. Think of it as another way Mac users can

ANDREW GORE

Charity

USE YOUR CREATIVE SPIRIT TO GIVE SOMETHING Васк то THE COMMUNITY



distinguish themselves, and show that our innate sense of superiority is more than mere posturing.

Givin' Time

Time is money, or so they say. And giving doesn't have to be expensive, or for that matter, cost anything at all. All around the country there are organizations that put together groups for special projects, from beautifying the landscaping of a developmental center to helping sort food for the Food Bank. I've done both of these; both activities took only a few hours on the weekend, and I got to meet some new people who hadn't heard any of my jokes yet. (Although by the end of the afternoon they'd had more than their fill, I'd wager.)

As Mac users, we have special skills that many organizations are dying for. We know how to use a computer, a skill many in our society lack. Users groups are always in search of instructors to help new members get the knack of using their Macs. Many schools, public and private, want mentors to help students after class with typing, programming, graphics, even reading and writing. And most schools have a significant investment in Mac systems.

Even senior centers often look for volunteers to help introduce their

clientele to the intimidating world of the Internet. Imagine the sense of accomplishment you would have if you showed an older person how to use e-mail to keep in touch with grandchildren and other distant family.

Make whatever you do a social event. Get your friends together and form a team—you'll be amazed how easy it can be to get started. It may even turn into a regular happening.

Working Assets

I've often thought of turning my garage into a Museum of Macintosh Technology. From that original 128K Mac

continues

case I've been meaning to turn into an aquarium for ten years now (apologies to Andy lhnatko, but he was not the first person to think of turning a Mac into an aquarium) to the half dozen Power Computing clones in various states of disrepair, my storage shelves are packed with the flotsam of a Mac aficionado with more dollars than sense. And we won't even talk about the Newtons, except to say I have at least one of every model ever created, including some that never shipped.

I've recently started the process of divesting my Mac assets, because I've discovered that many organizations out there are delighted to receive machines I've long since cast off. My garage has become like the Island of Misfit Toys, and I'm playing Rudolph. True, I have no real use for a PowerPC 601-based clone, but my local public school is still trying to get by with classrooms full of Mac Ilcx machines. (Where do they find the gerbils to keep those antiques running?)

If you have a Mac you no longer use because it doesn't have a G3, or enough storage or enough RAM or an AirPort slot, don't dump it at your next garage sale, donate it. I can almost guarantee your local church, community center, even public school will be happy to take it off your hands and give you a great tax write-off in the process.

Donate Your Body

I'm what you might call coordination impaired. I like sports, but lack the physical coordination to do anything but be an easy target in most team or individual activities. It's pretty sad, actually. The one sport I do excel at is running. Because, really, how much coordination does it really take to run? Step One: Put left foot in front of

right foot. Step Two: Put right foot in front of left foot. Step Three: Repeat Step One and Step Two as fast as you can for as long as you can.

It was only recently that I found a way to put running to a use other than making up for a wasted adolescence. And that is running for charity. I found that, without much effort, I could find a 10K race almost every month within driving distance of my home that I could participate in and raise money for a good cause. From the Senior Center in Half Moon Bay, California, to The Leukemia & Lymphoma Society, there are races and walkathons going on year-round.

Best part is, you don't even have to spend your own money if you don't want to. Many races encourage participants to collect money from sponsors, usually friends and coworkers, who agree to donate a certain sum based on the distance you cover. You'd be amazed how much money you can raise just by going for a walk in the park with a few thousand friendly striders.

If the spirit of the Macintosh is one of creativity and individualism, we should remember that we're not the only ones who should benefit from those traits. Whether we're giving Macs away, teaching people how to use computers more effectively, or just using the Web to find a nearby charity to support, this time of year we should all turn some of our creative energies toward helping other people. m

ANDREW GORE is editor in chief of Macworld. To comment on this column, please visit the Vision Thing forum at www.macworld.com/ columns/visionthing/

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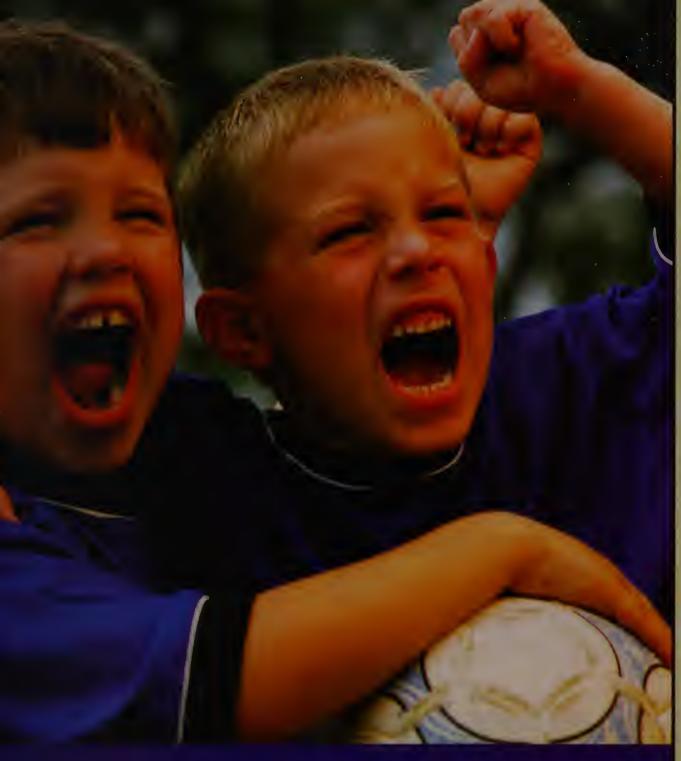
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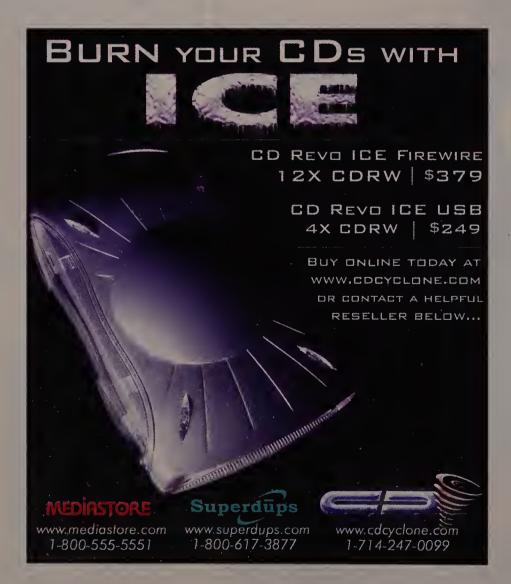


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Feedback



The Doctors Are In

The article on troubleshooting the Mac ("Mac Rx," October 2000) covered most of the basic techniques for getting a Mac back online, but it missed an important tip: your system could be corrupted, needing a clean reinstall. This happened to me, and a clean

reinstall of the system, along with desktop rebuilding and Norton Utilities, brought my machine back to life.

Carlo Federiconi

Los Angeles, California

Ted Landau's "Mac Rx" contained good information, but it failed to address a common and simple-torepair reason a Mac might fail on start-up: a dead battery. A friend managed to save a \$50 diagnostics fee and 48 hours of downtime by replacing the battery in his Mac.

None of Landau's fixes would have diagnosed and repaired this problem, leaving unsuspecting users to shell out hundreds of dollars in software and repairs while the solution is only a cheap battery away.

Bill De Brauwer

Garner, North Carolina

A Cubed Reaction

Vour coverage of the Power Mac G4 Cube was a great disappointment (Buzz, October 2000). What happened to your in-depth coverage of new Mac products, with pictures and descriptions of all ports? What about technical specifications, such as interface speeds and Speedmark performance results? What software ships on the G4 Cube? Will it work with my non-Apple LCD screen? Macworld does not even mention whether the G4 Cube has Ethernet.

And what about comparisons between the G4 Cube and other Macintoshes, especially those just released? What about the basics? Instead, we read that the G4 Cube can be used as an entertainment hub. Who cares? Hey, I love the Cube's design and want to buy one-I just want to make sure it works for me. Macworld's coverage didn't help me make such a determination.

Brian A. Foster

Castro Valley, California

Our October story on the Power Mac G4 Cube was based on the limited information available as that issue

went to press. Our November 2000 issue features an in-depth review of the Cube.—Ed

Click Me

acworld has printed one snide remark after another about the Apple round mouse, and I must rise to its defense. I am a full-grown adult woman who finds the round mouse both comfortable and easy to use, so Andrew Gore's assertion that it is "too small for adult-size hands" (Reviews. October 2000) reveals a certain masculine bias. Not all of Apple's users are large males; in my household (of four Macs), four of the five users do not fit that profile, and all four prefer the iMac mouse to any other mouse hands down. My husband, being handicapped by large masculine hands and a shady past as a Windows user, is the only one who has a problem with it; for the sake of his disability we bought a Macally mouse with a wheel. The continues

rest of us happily plug in the round mouse and go.

Sarah Stegall

Livermore, California

Smile

y Kodak DC215 camera turns out supercrisp images, suitable for 8by-10-inch prints, and the colors not only are brilliant but also appear completely accurate to my eye. You led readers to believe exactly the opposite (*Reviews*, October 2000).

Why do you extol the features of spot meters and adjustable ISO settings on low-end cameras? I really doubt that buyers of low-end cameras want all these adjustments, or have the time or the inclination to master their use. I thought we were

headed in the direction of completely automated, one-step photography.

Peter W. Smith

Plainfield, New Hampshire

We're far from completely automated photography. No camera can accurately meter every circumstance, and complicated lighting situations require a spot meter or exposure-compensation controls. When a flash is inappropriate, adjustable ISOs can help ensure that you still get the shot. Even novice film users are accustomed to the idea of using films with different speeds. ISO controls allow digitalcamera users the same sensitivity choices as film-camera users. The presence of a CCD in a camera doesn't solve all photographic problems. A few simple controls can make an inexpensive camera more flexible.—Ben Long

Feedbag

Say what you will about the Power Mac G4 Cube No, seriously, say whatever you like—everybody else has. We've been inundated by mail and online postings about Apple's revolutionary new desktop Mac in the past month. As you might expect, opinion is split: some love the Cube, some dislike it, and some reactions not even our finest Earth scientists have been able to decipher.

"MacMan," a Macworld.com
user, points to the Cube as proof of
a higher power: "God obviously
touched the minds of Apple engineers, for them to create such a
beautiful and functional product."
He goes on to propose it as a "therapeutic tool for treating depression." And if the Cube can clear up
gout, it may really have a future!

Other impressions of the Cube veered more toward the profane. "Chicks dig the Cube so much," declared one anonymous reader, "my house has turned into chicks-ville." Groovy. Swinging singles everywhere can now abandon the time-worn "etchings" come-on.

Reader "Eric," on the other hand, dismissed the Cube as "an

overdressed bimbo." Who knew that a computer model could elicit such unenlightened comments?

But "Krass" wrote to reassure us: "If Macs were (any) more popular, Apple would be ripped apart faster than a raw steak (thrown) to a pack of wild dogs." We're not sure what that means, but it doesn't sound good. Then again, the pack of wild dogs might not be so threatening—it all depends on the dog. Take "Kirin2112," who pointed out that not only will she fork over \$30 for a copy of the Mac OS X public beta, but "I also own a pink poodle."

What with the threat of rampaging wild dogs—and pink poodles—perhaps it's all for the best if the G4 Cube doesn't become a runaway smash. Several readers did write in complaining about "hairline cracks" in their Cubes, blemishes that Apple says are naturally occurring mold lines (see Buzz elsewhere in this issue).

But with one "J.J." those gripes didn't hold sway. "Help," he mocked. "My toilet paper is perforated every six inches!" Now that sounds like a job for the healing power of a G4 Cube.

Crossed Wings

Allow me to point out an error.

When reviewing Falcon 4.0 (*The Game Room*, October 2000), Andy Ihnatko says, "Falcon is a slightly less meticulous simulation of an F-14 fighter." The fighter that Falcon simulates is the F-16 (Fighting Falcon). The F-14 is the Navy's twin-engine fighter (Tomcat).

Kevin Cotham

Rome, Georgia

Hey, anyone dumb enough to pilot a MiG into my sky won't live long enough to tell the difference, knowwhutimean?—Andy Ihnatko

Letters should be sent to Feedback, Macworld, 301 Howard St., 16th Fl., San Francisco, CA 94105; via fax, 415/442-0766; or electronically, to letters@macworld.com. Include a return address and day-time phone number. Due to the high volume of mail received, we can't respond personally to each letter. We reserve the right to edit all letters. All published letters become the property of Macworld.

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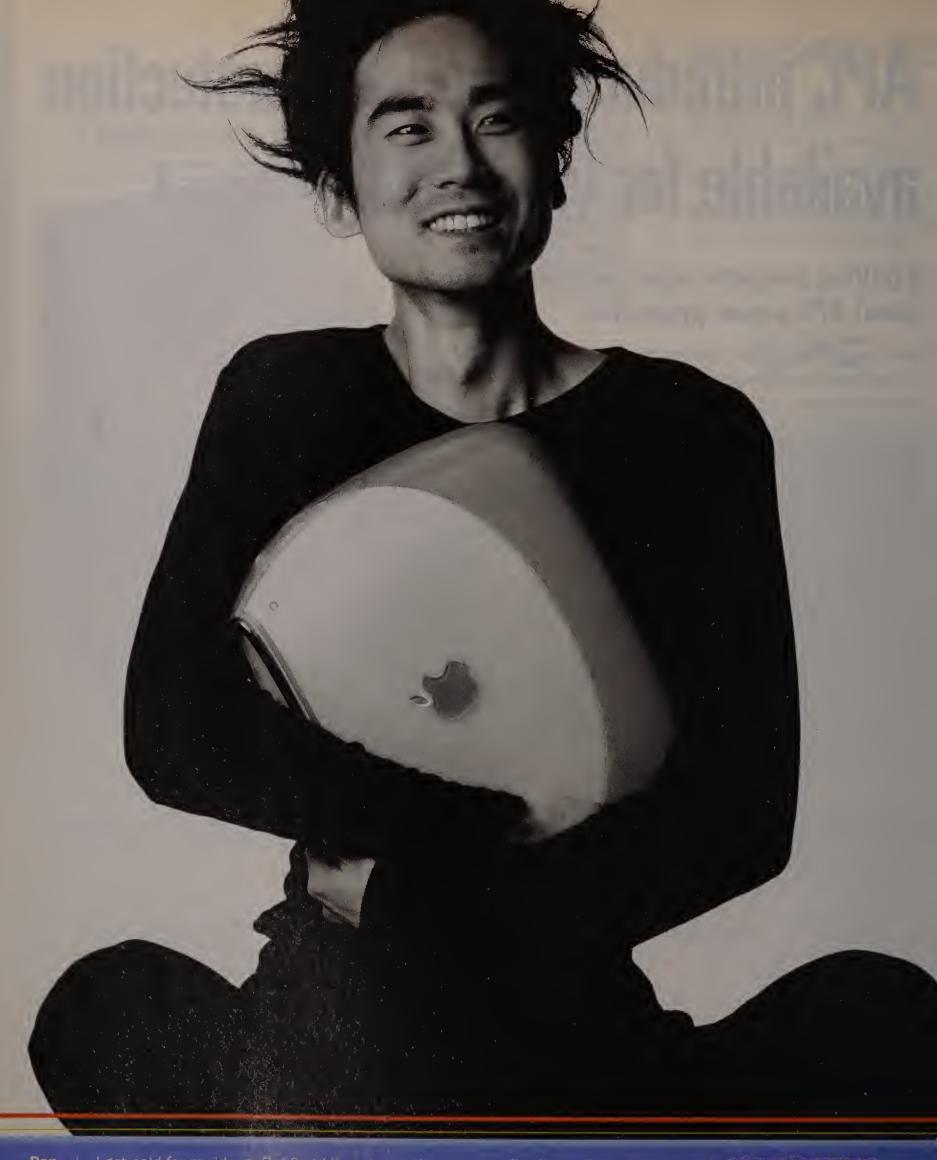
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Triple Feature

You can't release a Web graphics or design product these days without talking about integration. Designers want to be able to import, edit, and save files without worrying about what application they're using.

Macromedia (800/470-7211, www.macromedia.com) put that idea into practice when it released Fireworks and Dreamweaver updates in late 1999; version 3 of both programs featured tight integration with each other. Macromedia's move matched a longtime strategy of Adobe (800/833-6687, www.adobe.com), which continues to produce programs—most notably, its recent Illustrator and GoLive updates—that offer shared features.

So how does Macromedia keep pace with Fireworks 4, Dreamweaver 4, and Dreamweaver UltraDev 4? (And no, you didn't miss versions 2 and 3 of the database-driven Web-site tool; Macromedia has synced the program's version number with Dreamweaver's.) Would you believe even tighter integration between Macromedia applications?

Fireworks and Dreamweaver now sport a common Macromedia user interface introduced in Flash 5—an interface that should be familiar to anyone who uses Adobe products. Dreamweaver and Dreamweaver UltraDev add Flash Text and Buttons tools that create editable vector graphics directly in the applications. The

two programs also feature "round-trip" graphics editing, allowing users to exchange files with Fireworks.

Fireworks offers round-trip table editing, letting users update HTML and JavaScript code and graphics from Dreamweaver.

The three upgrades—all of which should be available in December—provide more than just tighter integration. They add new tools (see "What's New"), as well as maintain the flexibility and customization Macromedia has offered in previous versions.

Fireworks 4 and Dreamweaver 4 sell for \$299; you can upgrade to either program for \$149. Dreamweaver UltraDev 4 sells for \$599, with a \$129 upgrade cost. Macromedia will sell a Fireworks-Dreamweaver suite and a Fireworks-UltraDev package for \$399 and \$699, respectively.—PHILIP MICHAELS

News, Views, and Chatter from the World of Macs

What's New

Here ore some of the mojar changes to version 4 af the Macramedio Web design applications.

FIREWORKS 4	DREAMWEAVER 4	DREAMWEAVER ULTRADEV 4
Pap-up-navigatian-menu creator	Live syntax coloring in Cade view	Integrated Text Editor
Drag-and-drap-rallover creatar	Split Cade and Design views	Remote database connectivity
Enhanced Masking And Loyers ponel	JavaScript Debugger	JavaBean suppart
Improved import and expart of Phatoshop files	Code reference information on JovaScript, HTML, CSS, and brawser DOMs	Live Objects far easier farm layout

iMac, Meet Audrey

The machine boasts a radical new design that puts the PCs of old to shame. It promises a speedy onramp to the Internet, with quick and constant access to e-mail. And its maker hopes it will revolutionize the way we use technology.

Oh, and that iMac thing is nice, too.

Apple's iMac is getting a run for its money from Ergo, 3Com's new brand of Internet appliance, as both companies vie to offer the low-cost solution for easy Internet access. The first Ergo model, dubbed Audrey (\$499), hit the shelves in October.

With its curved corners, sleek casing, and choice of five colors, Audrey cuts a striking figure. A stylus for on-screen scribbling docks onto the top of the device and doubles as an e-mail indicator, blinking when you've got mail. Audrey bears a vague resem-

MAC STUFF

Good to the Last Drop

High-tech workers, expensive electronic equipment, and over-caffeinated beverages are a dangerous combination. After your fifth or sixth triple espresso, you tend to start knocking cups over instead of picking them up. The Cyber-Drinkholder (888/428-7465, www.cyber-drinkholder.com) can help. Able to handle anything from a smallish coffee cup to a 32-ounce Big Gulp, the Cyber-Drinkholder either suctions to your desk or glues to the side of your computer, making your caffeineinfusion system-of-choice nearly impossible to upend. Resembling a floppy disk, the tabletop Cyber-Drinkholder sells for \$20; the upright model costs \$13. Available in all the old iMac colors—and

with new colors in development-it's the perfect way to say, "I have lost all hand-eye coordination."

-GREG KNAUSS





blance to Rosie, the robot maid from The Jetsons, if you can imagine that George Jetson finally lost his cool and beheaded his mechanical domestic.

Functionality is what 3Com hopes will set Audrey apart. Think of it as the ultimate organizer, an always-on central terminal where family members can share schedules and to-do lists. At least, that's how 3Com envisions it. The front of the device sports six buttons—a power button and others for e-mail, a date book, an address book, a Web browser, and an Actions palette that moves information between applications.

Any similarity to the Palm Pilot is purely intentional; in fact, 3Com sees Audrey as a natural extension of Palm-based personal digital appliances. The device runs on the QNX operating system and uses Palm's syncing technology. Along with its two USB ports and built-in modem, Audrey sports a serial port for a Palm cradle in back, for syncing with your Pilot.

There's only one problem with 3Com's scenario: What can Audrey do that a low-priced computer can't? For \$799 these days, you can buy an entrylevel iMac. Sure, 3Com's Audrey costs several hundred dollars less, but the iMac is built to let you do a whole lot more. It all comes down to what you want out of a computer: inexpensive Internet capability or greater functionality.

Unless, of course, you find Audrey's resemblance to the severed head of a cartoon robot just a little unsettling. . . .—PHILIP MICHAELS

www.macworld.com/2001/01/buzz/audrey.html

Macworld.com tells you how Audrey—and other Internet devices—measure up to the iMac.

Cracking Up?

The minute Apple debuted its sleek G4 Cube, you plunked down \$1,799 for the pint-size supercomputer with the singular look. When it arrived, you immediately opened the box to marvel at your eye-catching machine . . . only to notice hair-thin lines on the Cube's casing.

If you put it that way, it's easy to see why the very faint lines are causing such a very big fuss. The appeal of the G4 Cube lies as much in how it looks as in what it does.

The lines appear around the two bolts and DVD drive on the top of the Cube and near the logo on its front.

Apple says these are mold lines—not weaknesses or defects in the plastic—that appear because of the injection molding process used to form the Cube.

Some Cube owners don't buy that; they argue that the lines are actually cracks, an allegation Apple denies.

Given the uproar over the lines, is the Cube the right machine for you? Here are three arguments for and three against the square computer with the much-debated design.—PHILIP MICHAELS



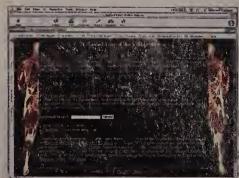
🔸 🌑 🌑 🔞 Reasons to Buy a Cube

- 1. Lines, schmines—they're hardly noticeable. Besides, it's a cosmetic issue that doesn't affect the Cube's performance.
- 2. It's not just the Cube's look that makes it revolutionary; this is a 7-inch-square computer that takes up little space and is a snap to open.
- **3.** Nothing changes the fact that you get a 450MHz processor and 20GB of storage in a tiny computer.

3 Reasons to Take a Pass

- 1. If your interest in the Cube is purely aesthetic, the lines—no matter how minor—are a visible blemish.
- 2. The Cube doesn't have any PCI slots, and expandability is limited.
- **3.** You're paying a premium for a radical design, especially when a 400MHz G4 tower can be had for a lower price.





CLICK HERE

Blinding Me with Science

You might think scientists would be too busy cloning a race of genetically perfect sheep to field questions about oxygen molecules and volcanoes. But that's what's going down at MadSci.org. The Mad Scientist Network pools the collective craniums of hundreds of scientists versed in everything from astronomy to zoology. Visitors can submit a specific question or browse through the site's archives for past answers. Since the site is run by scientists, you're treated to organization that rivals taxonomic classification—information is sorted by subject, grade level, and keyword. If all this wisdom makes your head spin, fire up the Random Knowledge Generator to retrieve a sampling of questions and answers. To put your newfound smarts into practice, click on the MadLabs link and explore the Edible/Inedible Experiments archive. And spread the word—not all mad scientists use their knowledge for evil.—LISA BAGGERMAN

The Naked Sim City

Since it hit the platform this summer, Aspyr Media's The Sims has captured the imaginations of Mac gamers—so much so that some aren't stopping at just playing the game. Not content to merely control the lives of their virtual creations, some gamers have created skins and patches to liven up The Sims. And truth is sometimes stranger than fiction—try to tell which of the following are actual Sims downloads and which are just products of our fevered imaginations.—MATHEW HONAN

- a) The Nude Patch: Now your Sims can walk around wearing only a smile. This patch also removes the blurry spot that appears when the Sims shower.
- b) The Slot Machine Patch: Install a slot machine in the living room, and watch your Sims fulfill their tiny dreams of avarice.
- c) The Ebola Patch: Flesheating viruses are no laughing matter (except when it's virtual flesh).
- d) The Bill Clinton Patch: This is one of the many skins that changes the look of the Sims—in this case, giving them a striking resemblance to a certain

commander in chief.

- e) The Monica Lewinsky Patch: If combined with the Nude Patch and the Bill Clinton Patch, this patch just spells trouble.
- f) The Ken Starr Patch: Look out, Mr. Presidentl He's got a subpoenal
- g) The Marijuana Plant Patch: It's just there for decoration—don't expect to see your Sims turning on and dropping out.
- h) The Titanic Patch: One simple download, and your Sims' humble abode looks like the deck of the doomed ocean liner. Tell that Canadian chanteuse to knock off her caterwauling!

i) The Napster Patch: Help your Sims stick it to the Man as they illegally download copyrighted material without paying a cent.

- i) The Teleporter Patch: Boldly go where no Sim has gone before.
- k) The John Rocker Patch: Download the mouthy Atlanta Braves pitcher in either his home or road uniform.
- I) The Bill Gates Patch: Who wouldn't want his Sim to look like the world's richest man?
- m) The Steve Ballmer Patch: Who wouldn't want his Sim to look like the world's richest man's

ill-tempered sidekick?

- n) The Plague Patch: Buy a guinea pig, and watch in horror as it unleashes a virus that destroys your Sims, your game, and your God complex.
- o) The Jerry Garcia Patch: Jerry lives, dude! And he's eyeing that Marijuana Plant Patch a little too conspicuously for our taste.

ANSWERS: c), f), h), i), and m) are all willful, deliberate frauds. If you were able to weed out the lies from the actual Sims patches, congratulations. And try to get out of the house more.

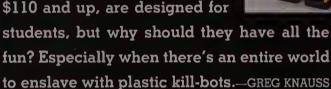


MAC STUFF

Legos, Will Robinson! Legos!

Three emotions dwell in the heart of every geek: an innate desire to build things, a fondness for interlocking plastic blocks, and the impulse to destroy the earth with killer robots. One product satisfies these urges-Lego's RoboLab, available from educational distributors such as Pitsco Lego Dacta (www .pitsco-legodacta.com). Based around a \$125 computerized central control, your

Mac, and the unblinking infrared eye that allows the two to communicate, RoboLab kits combine motors, sensors, and enough Lego bricks to kick-start a reign of robotic terror. The kits, which sell for \$110 and up, are designed for



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PRO FILE

Imaging is Everything

O & A with IOHN KNOLL

John Knoll picks good hobbies. His interest in building miniatures got him his first Hollywood gig as a model maker.

Patching together a rudimentary motion-control camera in his basement landed him a job as a camera operator. And tinkering with image processing led to two great advances—the knockout special-effects work he's done for George Lucas's Industrial Light & Magic and the development, with his brother, Thomas, of the image-editing application Photoshop. "I have this history of turning hobbies into professions, "Knoll says.—ADELIA CELLINI

Q: When did you first use a Mac?

A: In 1984. I was coming close to my final year at USC and my dad had gotten one of the original 128K Macs. I was at home visiting, and I played around with it for a little while. I thought it was the coolest computer ever.

Q: How did the idea for Photoshop come up?

A: I was tinkering around with this new hobby of writing computer graphics software. I had been exposed to color-image processing over in the computer-graphics department [at Industrial Light & Magic], and my older brother, Tom, was working on his doctoral thesis, which included image processing. I remarked how similar it was to some of the stuff I'd seen on this Pixar image computer. At the same time, I was interested mostly in the code for how bright a pixel should be and not how to display it on the

screen. Some of Tom's tools could take a raw image back on disk and display it and save it in different formats. So Tom gave me some of the tools he'd been writing, so I could do manipulations to the images.

Q: What's the advantage of Photoshop in moviemaking?

A: It came about right around the same time the whole film industry was beginning to move rapidly toward digital compositing and computer graphics. It was a tool that filled a niche that was very important to the industry. A lot of image compositingtaking a lot of images from different sources and putting them together into one image—was actually

done in Photoshop for a couple of different shows, such as The Rocketeer and Memoirs of an Invisible Man.

More Info:

www.macworld.com/2001/01/buzz/knoll.html

John Knoll has more to say about movie special effects and the future of image processing.

Q: How has digital manipulation changed moviemaking?

A: It used to be in the not-sogood-old-days that you were very limited in the kinds of effects that were technically possible with the limits of the equipment. A lot of times a huge amount of effort went into a shot, making sure there wasn't a black line around objects. Now you can kind of take those sorts of issues for granted. Most of the effort that goes into a shot now goes into whether it looks good or not, not the mechanical issues of putting the pieces together.

COOL STUFF

Scanning's New Dimensions

If you've ever tried to scan a three-dimensional object—a product, any part of your body, the family pet—you know the results can be less than satisfactory, the details lost in murky shadows. The \$400 Lightshow 3D Object scanning system from 3D Scan (570/283-3151, www.3dscanner.com)



can tackle such shadowy problems. An iMacblue box that sits atop any 11by-17-inch or smaller flatbed scanner, Lightshow employs a transparent

double-sided acrylic mirror to illuminate an enclosed object from all directions. The result: bright, clear pictures that offer depth and dimension, perfect for desktop publishing, Web images, or 3-D modeling—or preserving images of Fluffy for posterity (though you didn't hear that from us).—GREG KNAUSS

Medicine For Your Mac



Nothing can ruin your day faster than a sick and ailing computer. And while Macintosh is one of the most reliable computers in the world, sometimes things can go wrong. That's why we invented TechTool Pro. TechTool Pro is the super-utility that can find and isolate almost any problem on your computer. No other utility in the world comes even close to covering as many aspects of your Macintosh as does TechTool Pro.

But diagnosing computer maladies is only half the battle. Besides repairing drives, recovering data and checking the health of your Macintosh components, TechTool Pro can now help protect you against virus problems and software conflicts. TechTool Pro can also keep your Mac running at its peak between problems. The program optimizes your disk drive to make your computer run faster and more efficiently. Our RAM panel even allows

you to see the inner configuration of your memory without needing to open the case.

Do all these features make TechTool Pro complicated to use? Not at all. The MultiTester feature allows you to give your computer a full checkup with one click of your mouse. TechTool Pro even creates graphic, easy-to-read and understand reports. Now you can know the state of your computer without having a degree in computer science.

Every day, more and more Macintosh professionals are choosing TechTool over other system utilities. In fact, even Apple Computer includes TechTool Deluxe with every copy of their AppleCareTM Protection Plan. Simply put, TechTool Pro 3 is the most complete and powerful troubleshooting and repair utility available for your computer. Why would you settle for anything less?













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What's HOT A QUICK LOOK AT THE WORLD OF TECH

SPECIAL APPLE-IN-DANGER EDITION

- 1. Biography paints unflattering picture of Steve Jobs. Shocking revelations: Jobs is a perfectionist! The Apple CEO is a demanding boss! Earth is round!
- 2. G4 Cube owners angered by visible flaws in computer's casing. The other complaint? "This slot on top isn't doing a damn thing to warm up my Eggo!"
- 3. Slow sales hurt Apple's fourth-quarter profits. But business is sure to pick up when the iMac's littleknown self-destruct feature activates just before Christmas.
- 4. Apple's stock price plunges 52 percent in one day. In these turbulent times, we're glad our nest egg is tied up in something stable—dot-com stocks.
- 5. The Mac OS X beta is feature rich. But some jokers just want to harp on the negative.

roduct WAT



RELEASED

- FireWire-ready external hard drives from Maxtor (800/262-9867, www .maxtor.com): The 1394 External Storage drive comes with a 40GB capacity (\$280) or 80GB capacity (\$400).
- An Adobe After Effects plug-in from Alias/Wavefront (800/447-2542, www.aliaswavefront .com): Maya Paint Effects (\$499) lets users apply natural painting effects to fullmotion video.
- An Internet security utility from Symantec (800/441-7234, www .symantec.com): Norton Personal Firewall 1.0 aims to protect Mac users from hackers and security breaches by

blocking connections to the computer. The utility sells for \$70. It will also be included in Norton Internet Security 1.0, a \$100 Internet security suite that also features Aladdin Systems' (831/761-6200, www .aladdinsys.com) iClean 3.5 and the latest version of Norton AntiVirus.



UPDATED

 Norton AntiVirus 7.0 and Norton Utilities 6.0, by Symantec: The \$70 AntiVirus 7.0 (upgrade, \$30) scans e-mail attachments for viruses and offers simplified preferences. The \$100 Utilities 6.0 (upgrade, \$50) offers new data-recovery benefits and custom

optimization profiles. They'll be packaged together in Norton SystemWorks 1.0, a \$130 suite.

 CodeWarrior, by Metrowerks (800/377-5416, www.metrowerks .com): CodeWarrior 6.0 is completely Carbonsavvy. The new version sells for \$499; previous users can upgrade for \$249.



ANNOUNCED

- A countersuit by Macromedia (800/470-7211, www.macromedia .com) against Adobe (800/833-6687, www.adobe.com): the legal wrangling between the two rivals started with an August lawsuit, filed by Adobe, that claimed Macromedia had infringed on its tabbedpalette technology. The Macromedia suit claims Adobe violated patents on blended elements and sound waveforms.
- A free demo version of game-emulation software from Connectix (800/950-5880, www.connectix.com): the **Virtual Game Station** demo lets users play Sony PlayStation games on the Mac. It lacks some of the features in the \$49 retail product.—Compiled by PHILIP MICHAELS

COLOR CLASH

EPSON ADDRESSES PHOTO PRINT PROBLEM

When Epson unveiled new, longerlasting inks this past summer, the printer maker claimed it had tackled the problem of quick-fading digital photo prints.

The printers that use the inks— Epson's Stylus Photo 870, 875DC, and 1270 models—have held up their end of the bargain. The paper that the printers use has been another story.

Some users—less than 1 percent, Epson says—have reported that the cyan dye used in the inks can fade to orange if left out in the open air.

Epson blames the problem on its Premium Glossy Photo Paper, which "doesn't offer the same level of protection against airborne contaminants" as Epson's other papers, says Keith Kratzberg, the company's director of photo imaging.

So how do you protect your digital prints? By storing them in a picture frame or photo album. For prints that can't be stored that way, Kratzberg suggests using Epson's Photo Paper or Matte Paper Heavyweight.

Epson has released a reformulated version of its Premium Glossy paper. The packaging will state that the paper is intended for stored prints.

There are no announced plans to reimburse customers affected by the color shift, although Epson has set up a phone number (562/276-1311) for customers experiencing problems.

The color shift has been embarrassing for Epson—and irritating to affected users—but Kratzberg sees a bright side to the situation:

"We've learned that long display life is really important to people, and they need that [Premium Glossy] paper for that application."—PHILIP MICHAELS

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Your Guide to Re-Entering Society



Yes, this is actually money.

It got redesigned a

couple of years ago.

This is your mom and dad. By the way, you have a little brother now. (His name is Steven.)

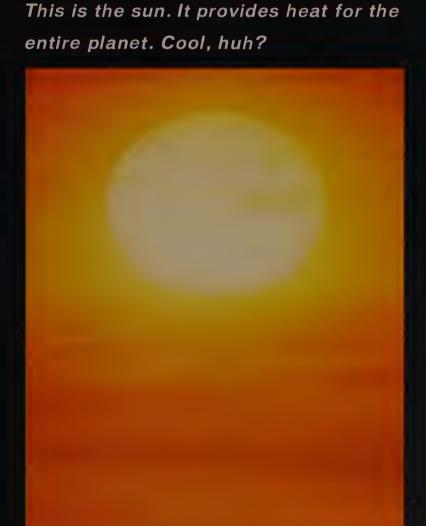


MACROMEDIA® DREAMWEAVER UltraDev 4 software can help eliminate some o the grunt work involved in building data-driven Web applications. Dreamweaver UltraDev Dreamweaver UltraDev to write code exactly as you would by hand. In the end, you'll get your work done quicker and, finally, up to your standard. Welcome back. We missed you.





This is your girlfriend. She's dating Mark Warren now.



ou might feel a little

bit skeptical when you first encounter Microsoft Office 2001. After all, Office 98 (****; Reviews, June 1998) was a powerful and Mac-friendly package. Microsoft Word, Excel, and PowerPoint each has more features than most of us will ever use. Word can handle everything from a shopping list to a Ph.D. candidate's thesis paper. Excel's number-crunching tools analyze baseball box scores and rocket trajectories with equal ease. So how could Microsoft possibly inspire you to upgrade again?

The answer is simple. That is, make Office applications simple, make them easier, and make them personal. With Office 2001 (\$499; upgrade, \$299), Microsoft introduces a new program to the venerable software suite—an e-mail and personal information manager called Entourage 2001. The company has also simplified many existing features and added a smart sprinkling of new features to existing programs. In the process, Microsoft has given the great majority of Mac users who use Office an opportunity to make some New Year's resolutions. The entire suite gives you powerful organizational tools that you can use to become more organized this year; by learning how to use the Office 2001 programs well, you can get your work done more efficiently.

So ring in 2001 right. Come with me on a tour of the new Office, and learn how it can help you better do your daily work. (To get even more information about using the new Office to get your life together, check out "Slide Show to Go" and "Organize with Entourage," both in How-to, or see our review of Office 2001, elsewhere in this issue.)



NEGRINO

Take Charge

of Your Life with

Microsoft Office

2001's New Suite

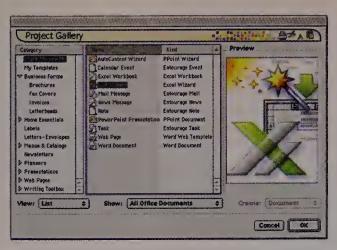
of Programs

Learning to Share

It's the little things that slow us down. Say you're working in PowerPoint you've got to open up Word just to look up a synonym. Office 2001 adds features that are shared by all (or in some cases most) of the programs in the suite—great because you no longer have to spend time figuring out which application has the feature you need and switching back and forth.

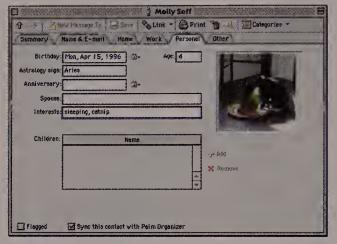
Shared Templates When you start up any of the Office 2001 programs, you'll see the new Project Gallery, a kind of super Open dialog box (see "Create Anything"). From Project Gallery, you can create any blank Office document or choose from Office 2001's extensive collection of templates. This capability blurs the distinctions between programs—making you feel as though you're working in Office World, rather than in discrete appli-







Create Anything The new Project Gallery lets you create any kind of Office document from within any of the Office applications. You can choose new blank documents or get a head start by using one of the many predefined document templates.



Total Recall Entourage's contact creation page lets you enter detailed contact and personal information; you can even drag in a photo in a number of formats.

cations—and saves you time because you don't have to return to the desktop to create a document with a different Office 2001 program.

Multiple Clipboards How many times have you needed to copy and paste more than one item between programs? Now you can cut, copy, paste, and even drag and drop multiple items of text or graphics to and from the Office Clipboard when you're using any Office application except Entourage. Your items remain in the Office Clipboard even after you close an application or restart your Mac.

Easier Formatting Easy-to-find features make a program more productive. Enter the Formatting Palette, which replaces Office's Formatting tool bar. You'll find this palette in Word, Excel, and PowerPoint (but not in Entourage). It allows you to view and access many formatting options at once, and its clearly labeled options take away the icon guessing game. If this palette gets in the way, fear not, you can reactivate the Formatting tool bar by choosing Customize from the Tools menu and selecting the Formatting option.

Improved Dictionary The entire Office suite now shares the new Encarta World English Dictionary. Just highlight a word and choose Dictionary from the Tools menu (or control-click on the word and choose Define from the contextual menu): up pops a window with a highlighted definition. (Definitions were unavailable in previous versions.)

Familiar Formats Another significant feature of all Office programs is compatibility. You can save your Office 2001 documents in the Office 98 format, and you can open Office 98 documents in Office 2001. Office 2001 also reaches across the platform divide, offering full compatibility with Office 97 and 2000 for Windows files. (Microsoft Windows Outlook files, however, are not compatible with Entourage.)

Entourage Enters Office

E-mail can suck up much of your free time, and I'm not even talking about the time you spend deleting spam—I'm talking about the time you spend switching between different programs, looking for dates and names, searching through old e-mails for important instructions, and keeping track of whom you need to reply to—and when. Office 2001 gives you the ability to change all that, if you choose, with the suite's new personal information manager (PIM), Entourage. If at first glance Entourage seems familiar, that's because it's built upon Outlook Express 5.0, Microsoft's free e-mail program. Entourage's major shortcoming, however, is that it's a single-user program. Unlike Outlook for Windows, you can't share your calendar and contacts with your colleagues over a network.

What's New Entourage has a true contact manager, modules for a calendar, a tasks list, and a section for notes. These PIM features bring time management to Office 2001 and make it easier to keep projects on track. You'll use Entourage's e-mail abilities for communication and its PIM features to schedule personal time and tasks.

The other Office programs use Entourage too; from within Word, Excel, or PowerPoint, you can send an open document to a friend or colleague as an e-mail attachment. Those programs also have a new button on their main tool bars, Flag For Follow Up, which lets you create a reminder in Entourage's Calendar—a Reminders box pops up in any open Office program when the time you've set arrives. This integration of time and tasks with your working documents helps you keep projects on schedule. (To learn how, see "Organize with Entourage," How-to, elsewhere in this issue.)

continues

What inspires the pictures that inspire?





"We all experience it. Those moments when we gasp and say, 'Oh, look at that!' Maybe it's nothing more than the way a shadow glides across a face, but in that split second, when you realize something truly remarkable is happening and disappearing right in front of you, if you can pass a camera before your eye, you'll tear a piece of time out of the whole, and in a breath, rescue it and give it new meaning."

- Joel Meyerowitz



Presenting the latest in a long series of inspirations.

This is the camera that will change the industry.

With the development of the Camedia E-10 SLR's 4.0 megapixel CCD, even the most advanced lens designs became suddenly outdated. That may sound hard to believe. Until you consider that none were developed with the extra-critical tolerances in mind that such an advanced CCD requires.

As a result, our 14-element, fully multi-coated ED and aspherical glass 4x zoom lens was completely rethought to yield even finer focus and resolution. Combine it with shutter release lag times equal to traditional SLRs, full control and our exclusive TruePic™ technology, and you have a camera like no other.

Would you like pictures like no other? Ask your Olympus reseller all about the E-10 SLR. See what we've done with digital photography. Then go out and see what you can do with it.

http://e-10.olympus.com



The digital E-100 Rapid Shot



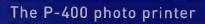
The photo you've been trying to take your entire life may have always been buried between frames two and three. To help capture those hidden moments, Olympus created the Camedia E-100 Rapid Shot.

The E-100 Rapid Shot fires in blistering bursts at speeds up to 15 fps. Shutter speeds are as fast as 1/10,000th of a second. We've even developed a pre-capture mode, to make sure you never miss a shot. And it's all done through a 10x Olympus aspherical glass zoom lens (35-380mm equivalent) with image stabilization and a 2.7x digital telephoto (1080mm equivalent).

We encourage you to ask your Olympus reseller about everything this lightning-fast camera offers. It's our hope the E-100 Rapid Shot will help you see photographic opportunities you've never seen before.

http://e-100rs.olympus.com







The finest digital images deserve to be the finest digital prints. The Olympus Camedia P-400 dye sublimation printer offers true photo-quality, continuous-tone prints and enlargements. All in just 90 seconds. Combined with our E-10 SLR or E-100 Rapid Shot, the P-400 gives you rich, stunning, professional-level prints and enlargements.



The Link Maker tool allows you to create links between any Entourage item and any other item or file on your Mac-even if it isn't an Office document. For example, you can link an upcoming appointment's Calendar entry to all of the files that pertain to that appointment, whether they are Word documents, Adobe Photoshop files, or contact information in Entourage's Address Book. A list of linked items allows you to quickly access all of the pieces of a project and helps keep you organized.

Entourage can also synchronize its Calendar, Contacts, Tasks, and Notes to your Palm handheld computer—a lifesaver if your work often takes you away from your desktop.

What's Better In terms of e-mail features, Entourage's Address Book is the most noticeable difference from Outlook Express. Instead of the limited Address Book found in Outlook Express, Entourage sports a full-featured contact manager with all the personal-data fields you might want (you can even include a contact's photo), plus a number of customizable fields (see "Total Recall"). If your clients or friends use Office 2001, you can even attach your contact information to an e-mail message and spare them the pain of typing it into their Address Books.

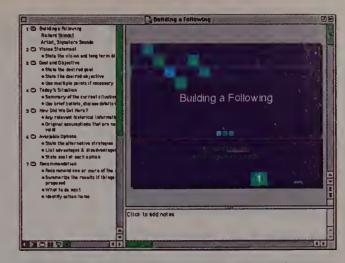
You can also export mail folders from Entourage just by dragging them to your desktop; they end up as text files (in the standard MBOX format), which you can open in word processors or import into other e-mail programs.

Working with the Web Entourage adds special Web features that make communication easier. From within the Address Book, a single click opens your Web browser and lets you get maps and driving directions for any contact address. You also have the ability to save a month (or range of months) of your Calendar as a Web page, with your appointments displayed, great if you're going on the road and want to keep track of your appointments from anywhere you have Web access—or as a way to share your calendar with friends and colleagues.

Word Works Harder

The soul of Microsoft Office has long been its word processor, Word. When Microsoft released Word 6, customers revolted over its more complicated interface. There are plenty of new goodies in Word 2001, however, that will make your work quicker and easier.

What's New The new Click And Type feature makes vertical centering easy, letting you double-click





The Long View PowerPoint's new Normal view has three panes that make it much easier to create and organize a presentation. You enter the slide text in the outline on the left side, seeing how the slide will look in the preview pane. This is also a good time to add speaker notes, in the bottom pane.



Sliced and Diced Data Excel's List Manager lets you sort and filter the information by any of the list's columns.

anywhere on a page (in the Page Layout view) and start typing without having to hit the tab or return key dozens of times. Word automatically adds paragraph alignments, tabs, and any other formatting to get your text to go where you want it to. And you no longer have to open a document's header or footer from the View menu to change it; just click where the header or footer would be on the page and start typing.

Word 2001 also gives tables an efficiency overhaul. For example, you can now create nested tables (tables within tables), which translate well to the Web. Header rows can be set to automatically repeat at the top of each page. And tables can now be moved around the page with text reflowing around them.

Doing a mail merge in previous versions of Word was a process best described as tortuous. The new Data Merge Manager doesn't make mail merging a cakewalk, but it does a much better job of walking you through the process in a logical fashion.

continues

Top Features at a Glance

Office 2001 Shared Features

- Office Clipboard
- Project Gallery
- Flag For Follow Up
- Formatting palette
- Improved picture-editing tools
- Encarta World English Dictionary
- Improved support for Apple technologies (such as Navigation Services and QuickTime)
- Better Save As Web Page features
- File compatibility with previous versions of Office for Mac and Windows

Entourage 2001 Features

- E-Mail client (POP, IMAP, and Hotmail)
- Junk Mail filter
- Newsgroup reader
- Full-featured personal information manager

Word 2001 Features

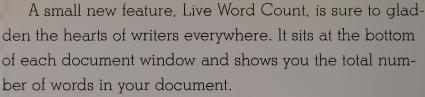
- Click And Type
- Improved spelling checker and thesaurus
- Contacts tool bar
- Nested tables
- Data Merge Manager
- Live Word Count

Excel 2001 Features

- List Manager
- Formula Calculator
- FileMaker Pro Import Wizard
- Tabular data drag and drop
- Automatic Save As Web Page

PowerPoint 2001 Features

- Three-Pane view
- AutoFit Text tool
- Improved table tools
- Picture bullets
- Enhanced animation effects
- Save As QuickTime Movie
- Save As Web Page



What's Better Word 2001's new Contacts tool bar is a vast improvement on Word 98's Address Book, and it shares information with Entourage's Address Book. You can automatically insert a contact's name, address, phone, or e-mail information into your Word document or select a name and address in a letter and add it to the Address Book.

The spelling checker, grammar checker, and thesaurus have been revamped in Word 2001. I found that words Word 98 wrongly flagged as incorrect were recognized correctly in Word 2001, and the new thesaurus offered a better selection of synonyms.

Working with the Web Word has become a fairly capable Web page editor—for an occasional quick page, it does a surprisingly good job. And that lets you worry about content instead of the vagaries of Web page rendering. The Web Page Preview feature saves your document as HTML and opens the file in your favorite Web browser, so you can see if everything is in place.

Excel Gets Easy

By making Excel do things the way you want it to, rather than the way a software designer in Redmond thinks it should, Excel's handy new features make the program easier for both novices and pros to use.

What's New For all its number-crunching capabilities, most people use Excel primarily for handling simple lists. (You know what I'm talking about. How many of your Excel documents keep track of your CD collection and office phone lists instead of an analysis of last year's profit margin?) List management is usually a database program's job, but Microsoft has wisely decided to help us out by adding the new List Wizard and List Manager (see "Sliced and Diced Data"). The List Wizard helps you create lists; the List Manager allows you to sort a list by any column and filter data as you want.

Lists are more popular simply because spreadsheet formulas are intimidating. But Excel's new Calculator helps you out—the scary-looking formulas haven't gone away, they're just handled by Excel. As you click on the buttons of the familiar-looking Calculator, Excel builds the formula for you. When you're done, Excel inserts the formula into the cell where you've been working.



What's Better Excel 2001 now includes the File-Maker Pro Import Wizard. When you drag a FileMaker Pro database onto an Excel worksheet, the Import Wizard starts up and lets you specify the database fields that you want. This makes it easier to apply Excel's superb analysis tools to your sales data, for example.

Excel is also smarter about handling tabular data data already formatted in rows and columns—from other applications. You can drag and drop or copy and paste tables from a Word document or a Web page, and the information goes neatly into Excel's columns—with little cleanup needed. This allows you to, for example, take stock prices from a financial Web site for further number crunching in Excel.

Working with the Web If you need to access your kitchen-remodeling budget from anywhere, Excel can save your spreadsheet as an HTML table on an otherwise blank Web page.

You can even set Excel to always save a worksheet as a Web page. If you set the location for the exported file to be your Web server, you can update information on your Web site periodically and automatically. Businesses can use automatic Web updates to send salespeople current information on inventory levels or prices.

PowerPoint Performs

PowerPoint has always been a powerful—though often clumsy—presentation tool. New and improved features make PowerPoint more elegant and intuitive.

What's New Let's face it, many of us don't sit down and think our presentations through before we fire up PowerPoint. We jump right inwriting our slides as we go along. But planning presentations was hard to do in PowerPoint 98 because the program was limited to separate Outline and Notes views. PowerPoint 2001 introduces a three-pane view, in which resizable panes of the document window simultaneously show you the outline, the current slide, and the notes for that slide (see "The Long View"). Having an area for speaker notes readily available while you're building a presentation encourages you to add notes as you go-instead of frantically inserting them an hour before your lecture.

The improved PowerPoint also gives you new ways to add flash to your slide shows. You can now use images as your bullets, and some samples are included in several new PowerPoint templates.

Tables in PowerPoint 98 were bothersome; you had to create your tables in Word or Excel and import them—a real time waster. With PowerPoint 2001's new pencil tool, you just click and drag to draw table boundaries and cells.

What's Better Fitting text on a slide has always been a maddening PowerPoint task. No longer. Turn on AutoFit Text in PowerPoint's Preferences menu, and PowerPoint automatically changes the line spacing, font size, or both to make text fit in its placeholder.

Office 98's PowerPoint Viewer, a program that let you run presentations on a machine without Office, has been ditched in favor of a better and more widespread technology: QuickTime. You can now save your presentations as cross-platform QuickTime movies, viewable by anyone with the free QuickTime Player. (See "Slide Show to Go," How-to, elsewhere in this issue.)

Working with the Web Like the other Office 2001 programs, PowerPoint lets you export to the Web. You can now save a presentation as a Web page and post it for further reference after you give your talk.

The new Office leaves you no excuses for a disorgan-

The Last Word

ized life. With Entourage as your schedule's traffic cop, you'll roll efficiently through your appointments and to-do's. Office's intelligent embrace of the Internet means better communication with coworkers and friends. And the new features and improvements in Word, Excel, and PowerPoint will shave minutes off of everyday tasks. If you learn how to use Office 2001 well—and you've taken the first step here—the price of this software upgrade can buy you the most precious commodity of all: more time. m

> Contributing Editor TOM NEGRINO is the author of Microsoft Office 2001 for Macs for Dummies (IDG Books, 2000).



the Wacworld

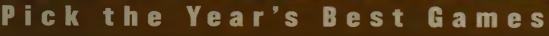
by Andy Ihnatko and Christopher Breen

Game Hall

Past and Present Game Columnists



2000 of Fame





With the fall come new throngs of people to gaze upon the gaming industry's past and current glories. The elementary-school kids here on field trips seek only basic amusement and a change from the daily drudgery of class. The grad students are little better—take that young man in the Foo Fighters T-shirt exam-

in the courtyard outside.

ining the Zork Trilogy diorama, for instance: he stands in front of one of the most influential immersive realities in the history of the genre. But I can tell by his posture that he's just desperately trying to come up with a thesis project and to avoid flunking out of his master's program.

Of course, such people are a valued source of sustaining revenue, but we don't operate the Hall for them. We do it for the Cub Scout who gets separated from his troop because he can't tear himself away from the Galaxian fresco, which puts him in mind of the Duke Nukem historical reenactment he earlier saw staged in the atrium.



Chris and I smile every time we see it happen, whether it's once a week or once a year. For we know that we're witnessing merely the first step in a process that will end a few years later, as we're shaking that Webelo's hand and inducting his groundbreaking new game into the Hall.

Fall is also, of course, the time when we induct the year's greatest games into the honor roll, but some games we hoped to see this year—games that have been bowling people over in beta form—are missing.

We are as proud of 2000's inductees as we are of any others. But with little exception, the 2000 games' accomplishments were evolutionary ones: great games made greater, or familiar ideas with modern execution. However, 2001 promises to shake things up: revolution is coming (see "Next Year's Contenders" for details).

Contributing Editor CHRISTOPHER BREEN recently passed the Game Room joystick to Andy Ihnatko and now pens Macworld's Mac 911.

ANDY IHNATKO can be found in the Chicago Sun-Times, MacCentral, Playboy, and rummaging through back alleys searching for Atari 2600 cartridges.



Meddle in Every Detail The Sims will help you prepare for the day when you have an adult daughter.

The Sims

ANDY: The phone rings at 9:30 a.m. The only people who phone me at that ungodly hour are dental assistants reminding me of an appointment or friends at work whose computers are acting naughty. I pick up and I hear, "Andy! It's John! I got a crisis here! I finished my Three's Company Sims house,

and just as I *finally* got Jack Tripper a restaurant job, my Mac froze up on me! What do I do?"

I am tempted to say "Get a real life instead of a Simmed one," but instead I advise him that if the mouse still works, he should just wait it out. Ignoring John's excited blabbering about creating a house for the Ropers next, I hang up and go back to sleep.

It's real life, only fake. Control the life of a semi-autonomous Simmed human—how he lives, socializes, eats, works, plays, and everything else—with success or failure metered by your Sim's overall happiness and sense of self-worth. It's finally out for the Mac and infecting player after player.

CHRIS: Count me among the infected whose Sim leads a far more fascinating and productive life than his creator.

What's Cool: Indifferently wielding the power to control the basic happiness of another human. Who It's For: Folks being "Simmed" by their bosses. From: Aspyr Media, 888/212-7797, www.aspyr.com; \$50.

Scrabble

CHRIS: Many years ago, within the pages of *The Macintosh Bible Guide to Games* (Peachpit Press, 1996), I made the bold pronouncement that Brian Sheppard's Maven was the best Scrabble simulation available on the Mac. My mistake. I should have suggested that Maven was the best Scrabble

simulation available on *any* computer platform. If not, why would Hasbro Entertainment incorporate Mr. Sheppard's Maven engine into its own outstanding version of the traditional word game?



Triple Word Score What's an eight-letter word for "family fun"? S-c-r-a-b-b-l-e!

Now that version of Scrabble has been brought to the Macintosh by MacSoft, and it's a winner. All the elements you'd expect from Scrabble on a Mac are here: the crosshatched board, the salmonpink Double Word Score squares, seating for as many as four players (comprising both computer and human opponents), a cagey com-

puter adversary, "mini-games" to hone your wordplay, and the ability to dabble at Scrabble with others over a LAN or the Internet.

If you're seeking a great gift for someone with a new iMac, look no further than Scrabble.

ANDY: It's easy to laugh at the idea of applying graphics, sound, and animation to a board game as static as Scrabble—at least in Monopoly you can go "vroomvroom!" when you move the little car around the board—but this Scrabble takes play to another level.

What's Cool: A great-looking Scrabble simulation that even the most seasoned wordsmith will find difficult to beat. Who It's For: Scrabble and traditional-games enthusiasts. From: MacSoft. 800/229-2714, www.wizworks.com/ macsoft; \$30.

Asteroids ***

ANDY: What could possibly be superlative about a new edition of a Reagan Era game?

Well, sure, it's been kicked up with Y2K sensibilities. While the original was a model of vector-based minimalism, this one has an audio track, fully rendered scenes between levels, and 3-D animation.

But it's still Asteroids—which is to say, though they've expanded the game play with more-sophisticated higher levels, they haven't ruined the chimplike simplicity that's the hallmark of any great arcade game. l don't want problem-solving, characters that I'm meant to truly feel for, or the same old Highly Experimental Powerful Weapons whose origins are shrouded in mystery. Just gimme a very basic premise: Your ship skates



Blow Up Everything Asteroids is just as you remember it, except the colors aren't hallucinatory.

in two dimensions around the screen. Shoot asteroids and other ships. Die when you are shot or collide with something. I like the mechanisms for play to be so simple that it's chiefly a question of how fast I can route signals from my brain stem to my fingers, without getting them hung up in the tar pits of my cerebrum.

CHRIS: If only MacSoft had found a way to import the hilarious sound effects from Ambrosia's wonderful homage to Asteroids, Maelstrom. . . .

What's Cool: It's like the Foo Fighters covering a Police song from the early eighties. There's nostalgia, sure, but enough modern credibility to make it fly. Who It's For: Parents who want to be beat their nineyear-old kids at something. From: MacSoft, 800/229-2714, www .wizardworks.com/macsoft/; \$30.

Diablo II \$\$\$\$1/2

Best Hack-and-Slash Game

CHRIS: Because we engrave the Game Hall of Fame statuettes in bulk, it would be helpful if Blizzard, makers of Diablo II. released a new Mac game each year. Then we could save a few dollars by ordering an extra ten awards continues

Special AWARD

BEST UPCOMING GAMING HARDWARE: Radeon

ANDY: We knew that this award would go to a graphics card. What was tough was getting around to a decision: we just hadn't allotted enough time for running naked through the parking lot laughing.

We couldn't believe we'd lived long enough—through ATI's long dare-we-say monopoly on the category—to finally see a choice of manufacturers. At last, 3dfx—a Windows Godzilla—has stepped into the Mac fray.

So why are we giving the honors to ATI's new Radeon card? The Radeon (which should be shipping by the time you read this) will be more influential, with the usual blessings from Apple. And thanks to ATI's long relationship with the Mac, the card will be far more integrated. In game play, 3dfx's new Voodoo 5 card kicks any body part you care to name, but ultimately it's a PC product with Mac drivers—it doesn't work with Apple's DVD player.

CHRIS: This one was a real squeaker. Had the PCI Voodoo 5 produced the same smoking frame rates on the Mac as it does on PCs, Voodoo would be in. It didn't.

What's Cool: Greater graphics power today means better game play today and intensely insane game play in a few months, when it's fully exploited. Who It's For: Anyone interested in playing something more exciting than Scrabble. From: ATI Technologies, 905/882-2600, www.ati.com; \$279.



The Devil Made Me Do It Mow down the forces of darkness in Blizzard's Diablo II.

and scrawling "Blizzard" and an upcoming year across the bottom of each, and be done with it. Blizzard's games are that good.

Alas, it takes the company more than a year to give birth to games as remarkable as Diablo II. This thirdperson-perspective game combines many of the best elements of traditional role-playing, adventure, and hack-and-slash games. As with other Blizzard titles, Diablo II is a visual and aural treat, with dramatic lighting and environmental effects and an evocative sound track. You'll appreciate that Diablo II is so easy on the eyes and ears; with the ability to choose between five different protagonists and challenge Diablo's hellish minions across four vast realms, you can easily get lost in the game for weeks on end.

ANDY: Yeah, it's like Dungeons & Dragons, only targeted at people who actually like to have fun. The original left me a bit cold, but Diablo II has me hooked.

What's Cool: Addictive hackand-slash adventure. Who It's For: The barbarian within us all. From: Blizzard Entertainment, 800/953-7669, www.blizzard.com: \$60.

Deus Ex 8888

ANDY: Man alive, there are a lot of walk-around-a-3-Denvironment-and-shoot-things games out there. But when Deus Ex shipped, it was a sign that the glut was officially over, that from this point onward developers were not invited to ship a product unless they were willing to do something

new with this category.

Deus Ex looks like other games, but beneath the surface it's more like reality. You work with a team and you learn as you go. For one, you wouldn't just pick up a weapon and instantly know how to work it or be a crack shot with it. In Deus Ex, experience counts; but if experience isn't doing



Feel Better about Ultraviolence Violating humanity's highest law needn't turn you into an animal. Aspyr Media's Deus Ex adds intellect to injury.

it for you, modifying the weapon might work. Here there are choices: some folks like to shoot, shoot, shoot. Others see a guard toting a shouldermounted Patriot missile and think, What the heck, let's just sneak around him and say we killed him, OK? Either option might work.

You have to shoot, but you have to think and learn and work with the other people in the scenario. What a concept. Before, you just had to look at the protagonist's cleavage.

CHRIS: As much as I enjoy beautifully rendered shooting galleries such as Quake III and Unreal Tournament, it is refreshing to exercise both mind and trigger finger in a 3-D shooter.

What's Cool: Freedom of choice and the fact that every decision matters. Who It's For: Shooters who want to think more, and thinkers who want to shoot more. From: Aspyr Media, 888/212-7797, www.aspyr.com; \$40.

Baldur's Gate

\$\$\$1/2

CHRIS: Just when we thought Advanced Dungeons & Dragons-style role playing games would never again grace a Mac's hard drive, Graphic Simulations brings to the Mac one of the most popular elves-spells-and-magic adventure games found on the PC: Baldur's Gate.

Baldur's Gate remains faithful enough to the old pen-and-paper Advanced Dungeons & Dragons (AD&D) games of yore to earn the grudging respect of traditional players. Still, it's not so choked with gothic arcana that it's likely to turn off the uninitiated. You'll find the requisite jumble of races (including human, elf, gnome, dwarf, halfling, and half-elf), classes, spells, and quests in this



Quality Quests Role-playing games return to the Mac with Baldur's Gate, inspired by Advanced Dungeons & Dragons.

expansive adventure. But the interface and rules are approachable enough that players entering the game's Forgotten Realms for the first time won't feel as if they'd been suddenly plunked down in Irkutsk without a phrasebook or a taste for omul.

Baldur's Gate is good, but not perfect. Missing from the game as we go to press is network play and an update to squash its most obnoxious bugs. ANDY: Well, to me, role-playing games take already dull and highly technical games and remove the possibility for social interaction. If it were my kid, I'd rather he spent his time trying to become a rock drummer.

What's Cool: The finest RPG to hit the Mac in years. Who It's For: AD&D fans and those who enjoy computer questing. From: Graphic Simulations, 972/386-7575, www graphsim.com; \$50.

Fly 2K \$\$\$\$1/2

ANDY: Why is Fly 2K the year's Best Flight Simulation? It's just more flight-simmy than its predecessor. Sim jocks will understand the significance of that development.

Terminal Reality hit it out of the park with its initial release, but now the sim has a certain obsessive-compulsive

quality that endears. You've got a working cockpit radio that lets you talk to other pilots in real time, via network. The instrumentation has also been vastly upgraded, allowing realistic simming of fly-by-instrument—which you'll need, thanks to the new engine providing realistic weather and cover conditions.

Why do people stick with flight sims? Particularly those that lack the fun of cannons and missiles? Easy:

Next Year's CONTENDERS

egular visitors to the Hall know that many of the games we'd proposed as candidates for this year's awards have yet to see the light of day—Oni and Halo from Bungie (www.bungie.com) and Tribes 2 from Sierra (425/649-9800, www.sierra.com) are among the most sorely missed. If these games are released in 2001, their names may yet adorn display cases created in their honor.

Pedal to the Metal However, those long-awaited titles aren't the only reason to keep an eye peeled. If all goes according to plan, 2001 will be the year Macintosh racing games finally come into their own. With any luck, the budding Jeff Gordon in your family could unwrap four racing games next holiday season: Aspyr Media's Need For Speed: Porsche Unleashed; MacSoft's Driver; Pangea's (512/266-9991, www.pangeasoft.net) Cro-Mag Rally; and Terminal Reality's (877/463-4263, www.terminalreality.com) 4×4 Evolution. Those who prefer air travel can look forward to United Developers' (214/855-5955, www.uniteddevelopers.com) release of ParSoft's World War II combat flight simulation, Fighter Squadron: The Screamin' Demons Over Europe.

The Eyes Have It Fans of third-person-perspective action games (think Tomb Raider) will welcome Ritual Entertainment's (www.ritual.com) Heavy Metal F.A.K.K. 2. The game, featuring heroine Julie Strain, is built on the Quake III engine and is sure to be a visual treat.

Speaking of which, there may be no more-visually compelling game available in 2001 than Mattel Interactive's (415/382-4400, www.myst3.com) Myst

III: Exile. As with Cyan's Myst and Riven before it, Myst III: Exile features lush graphics and sound. But Myst III will provide a more immersive, 360degree view of each scene. It's the first version not created by Cyan's Rand and Robyn Miller.

With this collection of games on the way, we're hoping 2001 will be a banner year for Mac gaming.



Myst Again Myst III: Exile will feature the kind of breathtaking graphics found in its predecessors.

to feed the fantasy that when a hysterical flight attendant asks if there are any passengers on board who know how to fly, they can push aside the ones with actual flight experience and bring that sucker in. With Fly's new upgrades, this sim moves into the realm of credible flight training. CHRIS: Fly 2K is a wonderful flightsimulation game, but I can't help wishing that Terminal Reality would

market an AMRAAM/Unguided Ordnance add-on.

What's Cool: Detail, detail, detail. You're not playing . . . you're training. Who It's For: Air wonks who are thrilled by staring at dials for 98 minutes. From: Terminal Reality, 877/463-4263, www.terminalreality .com; \$20. continues



Go Up-Diddley-Up-Up Fly 2K's smallaircraft sim is so realistic, up-and-coming rock groups are advised not to play it.

Star Wars: **Episode 1 Racer** \$\$\$1/2

CHRIS: With any luck, this will mark the last year we fling the garland for the Best Racing Simulation award at a game based on a nonexistent mode of transportation. Don't get me wrong, Star Wars: Episode 1 Racer—with its careening pod racers,

varied tracks, and imaginative opponents—is worthy of induction to the Hall. It's just that I'd like to see more bona fide, at-least-two-wheelson-the-ground, skedaddle-yourfuel-starved-tail-into-the-pits autoracing games come to the Mac.

That said, Racer offers nearly everything a racing-simulation fan could desire. The game includes 25 distinct tracks scattered across eight different worlds, outrageous speeds that often exceed 400 mph, outstanding graphics, and three modes of play. In Tournament Play you tackle the courses in succession. In Free Play you can race on any course you've unlocked in Tournament Play. And in the networked Multiplayer Mode you race against up to eight players on a LAN

Whether you're a Star Wars fan or not, if you have a need for speed, Pod Racer delivers the goods.

ANDY: What's wrong with fantasy vehicles? When I want reality, I've got Boston's Southeast Expressway and my Dukes of Hazzard sound track. Still, here's to many new racing sims next year.

What's Cool: Fast and furious racing action in a year largely devoid of racing of any kind. Who It's For: Racing fans and Star Wars devotees. From: LucasArts, 888/532-4263, www.lucasarts.com; \$20.



Use the G-Force Rib-crushing speeds and outlandish vehicles characterize LucasArts' Star Wars: Episode 1 Racer.

Sid Meier's Alpha Centauri \$\$\$\$1/2

Best World-Building Simulation

CHRIS: Sid Meier is to worldbuilding simulations what Ray Kroc was to artery-cloggingfast-food outlets—the creator of the Civilization franchise has either built or indirectly influenced the design of dozens of these explore-colonize-buildand-bend-your-neighbors-toyour-will games.

Alpha Centauri, this year's winner for best world-builder, is the sequel to Meier's Civilization II. In this game, the colonists who left their terrestrial home at the conclusion of Civ II have arrived on an alien planet. During the journey the



Spaceward Ho! Explore, colonize, and dominate another world in Aspyr's Alpha Centauri.

erstwhile earthlings have split into seven groups with differing ideologies. Your job is to lead the exploration and domination of your newfound home.

While Alpha Centauri maintains many of the elements of a typical Civilization franchise, it's a more refined and flexible game than its predecessors. For example, if you'd rather not micromanage every move in the game, you can prioritize and delegate tasks to governors, who then automatically do your bidding.

Alpha Centauri is a terrific game, but if it doesn't satisfy your desire for domination, you have some options. You can buy Aspyr's \$20 Alien Crossfire add-on pack from the company's Web site.

ANDY: It's actually the first such game I ever got into playing. I respected the others but was put off by the long time it took to get spun up for the game. I think Alpha Centauri puts you in the mood for destroying your fellow man over mineral rights with little fuss.

What's Cool: Civilization in space! Who It's For: Those with an unquenchable spirit of Manifest Destiny. From: Aspyr Media, 888/212-7797, www.aspyr.com; \$30.



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ADOBE PHOTOSHOP 6'S

GROUNDBREAKING

NEW TOOLS

PHOTOSHOP'S TONTICION OF TONTICION OF THE PHOTOSHOP'S TONTICION OF THE PHO

by David Blatner

No, I'm not paranoid. Paranoia would make me imagine that people are trying to harm me. Rather, I've got a profound sense of pronoia: the uneasy suspicion that Adobe is trying to make my life better.

Adobe Photoshop had nigh on zero competition—everyone who's anyone already uses it—yet Adobe still came out with Photoshop 6, one of the most innovative upgrades in the app's ten-year history. The company didn't need to work that hard; it has released several upgrades that were only reasonably good but flew off the shelves anyway.

Photoshop 6 blazes new trails by including Adobe Illustrator-like tools and vector type that stays vector type to the end. Version 6 also blurs the lines between Photoshop and Adobe ImageReady and GoLive. Why did Adobe go so

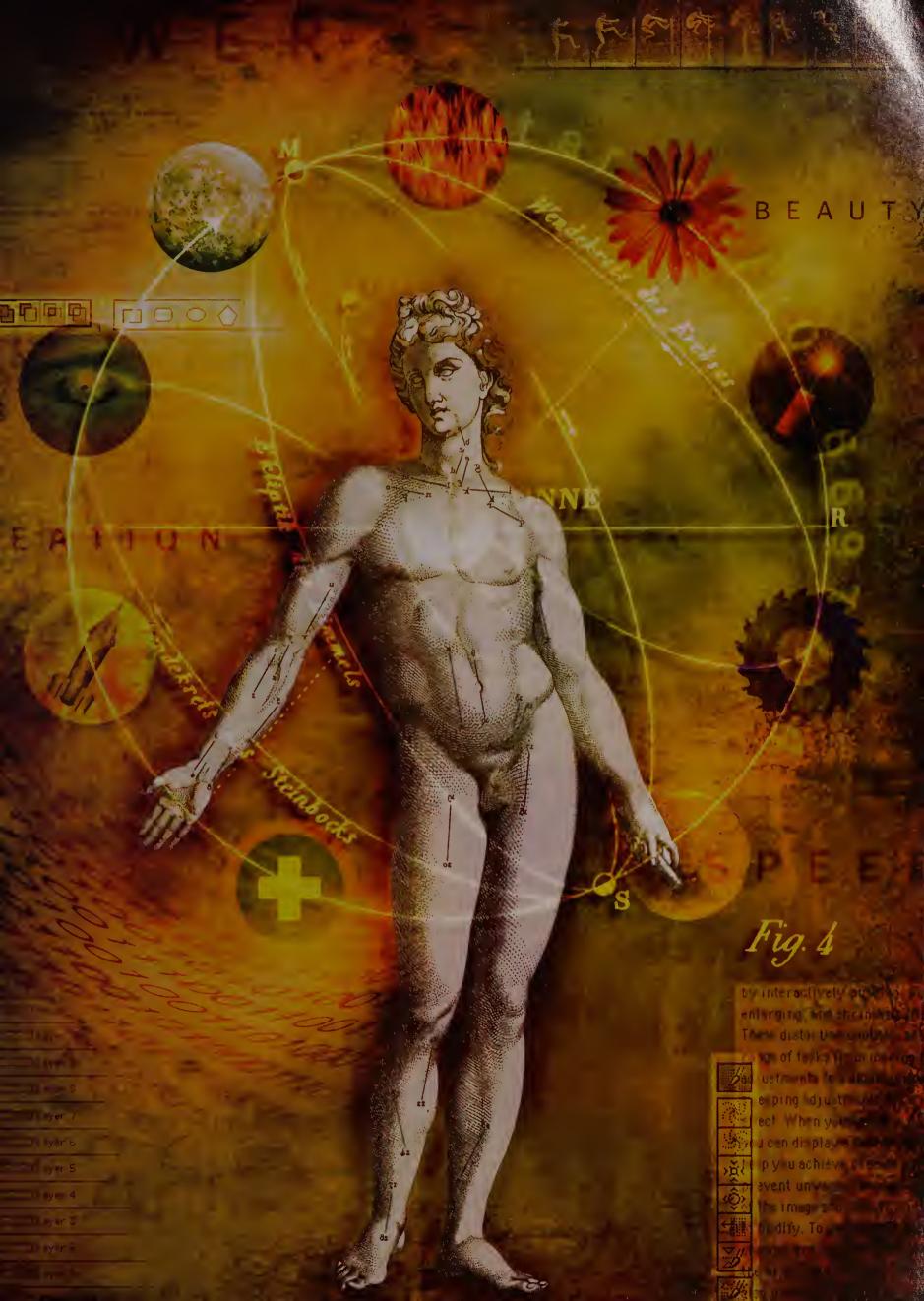


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64 SLIDE SHOW TO GO



far beyond simply responding to users' wish lists? Why has the company unleashed an upgrade that can make us so much more efficient and open the door to new frontiers of creativity? In a search for the truth, I'll detail the conspiracy feature by feature. (For more on version 6, see Reviews elsewhere in this issue.)

The Interface Cabal

Photoshop 6 includes a host of interface changes that increase efficiency but take almost no time to learn. The new Options bar (which replaces and surpasses the Options palette) offers context-sensitive options depending on the tool you're using (see "Belly Up to the Options Bar"). You can put this bar anywhere, though it fits best at the top or bottom of your screen. If your screen resolution is more than 800 pixels wide, the Options bar becomes a palette well where you can store palettes you use occasionally just drag the palette on top of the well. However, palettes in the well expand only when you're using them, so store your Color and Swatches palettes here, but not the Info palette.

A Better Crop The Cropping tool now provides visual feedback by shading areas you're cropping out. It's a big improvement over the old dashed lines. The Cropping tool can now draw trapezoids, not just rectangles—useful when you need to adjust for keystoning (the perspective you get when looking up at a tall building).

High-Bit Color In another important evolutionary move, Photoshop 6 lets you work with high-bit images in more ways, including applying Unsharp Mask, Gaussian Blur, and Add Noise to these files. High-bit images (16 bits per channel) are more flexible than those with the more common 8 bits per channel (also called 24-bit), especially for adjusting tone and color. Unless your scanner software is better than Photoshop, I'd recommend scanning in high-bit mode.

But these interface tweaks are little fish compared with the real power of this upgrade.

Lines at Last

Photoshop is a bitmapped editing program, right? Not anymore. Photoshop now lets you combine raster data (pixels) and vector data (Bézier lines) in one image. Because raster data is just a grid of pixels, it always has jaggy or fuzzy edges. The only good way to print a really sharp edge from a high-resolution imagesetter is with a vector, because these mathematical curves always give you the highest resolution possible from your printer. Earlier versions of Photoshop had vector tools for making clipping paths, which let continues

Photoshop 6 Throws Type for a Curve

ompared with Illustrator 9, Photoshop 6 has both limitations and advantages when you're creating type on a curve and combining it with raster images. Unlike Illustrator, Photoshop 6 doesn't allow you to bind text to an existing path, but its simple-to-use warping function lets you make complex shape envelopes that would take many steps to create in Illustrator.



Open a raster image, then click on the image with the Type tool to enter text directly on top of the image. Highlight the text with the Type tool and format it in the Character and Paragraph palettes (A).





With the type still highlighted, click on the Create Warped Text button 13 on the right side of the new Options bar to envelop the type in a shape **G**.

In the Warp Text dialog box, select the Arc warping style (A). To

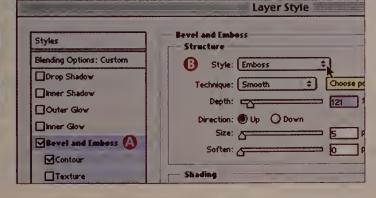
tweak the resulting distortion envelope, move the Bend slider B to control the shape's twist and the Horizontal Distortion @ and Vertical Distortion **(D)** sliders to introduce perspective.



To fine-tune the distortions, you have to convert the type to a vector shape. Select the layer with the Move tool, then go to Layer: Type and choose



Convert To Shape. Select the same layer with the Move tool and go to Edit: Free Transform. Hold down the # key as you drag any handle on the selection border to alter the transformation border until the letterforms follow the contour you need **6**. Press the return key to apply the changes.

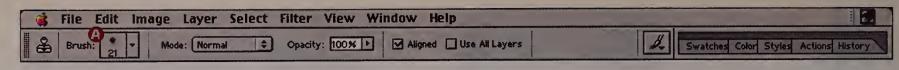


Now add raster effects to your vectors. In the Layers palette, doubleclick on the name of the text shape layer to open the Layer Style dialog box. Select the Bevel And Emboss check box (2). Choose Emboss from the Style menu 16; click on OK. To emboss with no fill, click on Blending Options (upper left) and choose either Multiply or Darken from the Blend Mode list at the top of the window.

To ensure that the shapes print as object-oriented vectors and not as pixels, go to File: Print Options. Choose Show More Options at the bottom of the

dialog box, and make certain the Include Vector Data option is also selected. Your final image will now output from Photoshop with hard-edged shapes.—RALPH BERGER





you snip off the edges of a bitmapped image to create a clean silhouette. But that doesn't help when you need sharp edges within your image.

Bézier Type Say you're making a logo, and you start by setting type. In Photoshop 6, the letters are Bézier shapes. You can fill those shapes with raster data (such as a scanned image) or apply layer effects to them (such as Emboss or Inner Shadow), and the inner and outer edges of your logo type stay sharp, even if you composite the type with another raster image or scale it in QuarkXPress (see "It's a Vector, It's a Raster!").

Tons of Transparency The debut of vectors in Photoshop also means you can drag line art from Illustrator or Macromedia FreeHand into Photoshop and make it transparent so you can see other layers behind the line art. And because Photoshop can now retain the sharp edges you used to find only in vector drawing programs, we may see many more documents laid out in Photoshop (see "Words, Words, Words" below).

But what really blows my mind is Photoshop 6's ability to place semitransparent raster data on top of vector shapes. For example, you might be working on a magazine cover with a raster photo of a sports figure partially overlapping the crisply rendered vector title of the magazine. In previous versions you had to make a clipping path, and the athlete's hair wouldn't blend in with the type. Now, to reach this publishing Holy Grail, you just do some tweaking in the Layers palette.

Still Basic But don't throw away Illustrator or FreeHand yet. Photoshop's rectangle, oval, pen, and polygon/star-burst tools are basic—not nearly powerful or intuitive enough to replace a full-fledged illustration program. For example, there's no easy way to mirror, layer, or run vector effects on the paths.

Of course, you can drag and drop artwork between Photoshop and either Illustrator or FreeHand, but I'd like the ability to drag headlines from QuarkXPress or InDesign into Photoshop. Well, maybe next year.

Words, Words, Words

Photoshop's weak type handling has long been an embarrassment, so Adobe overhauled the whole thing, building a type engine that almost rivals InDesign's. You can now type text directly on screen (instead of in a cumbersome dialog box), and the new Character and Paragraph palettes let you adjust formatting such as kerning, paragraph alignment, and

Belly Up to the Options Bar The Options bar not only lets you adjust the settings for whatever tool you're using, it also replaces the Brushes palette, making it easier than ever to choose a brush size **(A)**.

even hyphenation. Following in InDesign's footsteps, Photoshop now has a Multi-Line Composer, too, with a paragraph justification algorithm superior to QuarkXPress's.

Editable Warps In some ways, Photoshop's text tools surpass those of QuarkXPress and InDesign. You can stretch, twist, and curve your text into wavy fish eyes while keeping it editable. You can apply effects such as drop shadows, inner shadows, and embossing, and your text is still editable. Best of all, if you save your images as EPS, DCS, or PDF files, the text outlines remain vectors, so you get a crisp edge when you print to a PostScript printer or open your file in Adobe Acrobat (see "Photoshop 6 Throws Type for a Curve").

Realistically, though, because of the way Photoshop saves the text to an EPS file (turning it into long, complicated PostScript paths that can clog a printer's RIP), you should use this vector type feature only with small amounts of text, perhaps one or two words. This limitation—and the fact that you can't import or export text—means Photoshop won't replace your page-layout application anytime soon.

Loads of Layer Tools

Photoshop 5 had a perfectly functional Layers feature. Photoshop 6 leapfrogs 5 by including *layer sets* (folders in which you can group layers) and fill layers that can fill a layer with a solid color, a gradient, or a pattern. A new adjustment layer, called Gradient Map, actually maps



It's a Vector, It's a
Raster! Photoshop
lets you add true vector
(outline) type to your
images and even styles
such as Emboss and
Drop Shadow. Here, the
bitmapped image not
only sits on top of
vector type—but also
blends in using
semitransparent
antialiasing.

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the colors of a blend to the colors in your image—a fantastic way to colorize your picture quickly or create psychedelic oddities (see "A Horse of a Different Color").

Given Photoshop's new penchant for vectors, perhaps it's not surprising that you can use vector artwork as a layer mask. Do you want a particular image to show through your logo? Just drag the logo from FreeHand or Illustrator to Photoshop as a path (hold down the 1 key while dragging), then click twice on the Add Mask button in the Layers palette. The first click adds a regular layer mask; the second click adds the vector mask.

Interface Improvements The Layers palette is more powerful, and its interface is more obvious. It offers four different ways to lock a layer, the ability to color-code layers (this is especially helpful if you want to see all the layers in a set at a glance), and a pop-up menu approach to applying layer styles such as Drop Shadow, Emboss, and Color Overlay.

When you want to use several layer styles together repeatedly, you can save them as a group in Photoshop's new Styles palette. Perhaps your Web buttons always have a certain embossing with a certain texture, or your text is always a specific color with a particular amount of glow around it. Just create the style once, and then save it in the palette. I hope future versions incorporate layer styles for filters and adjustment layers as well.

Color Me escii720.pf

Nothing the folks at Adobe can do will make color management a pleasant experience. Designers who value predictable color are likely to use device profiles to get consistent color

for scanners, monitors, ink-jet printers, and final press output. These profiles are a big step in the right direction, but they're still no fun to use. Photoshop 6 goes a long way toward lessening the pain.

Color Spaces In a move that's making service bureaus cheer, Photoshop now gives each image its own working space, so you can keep an sRGB image open at the same time as an image in the Adobe RGB space. (In Photoshop 5, all documents had to conform to one user-defined space.)



Photoshop 6 also shows you what profile (if any) is embedded when you select Document Profile from the pop-up menu in the lower left corner of the document window.

Better Soft-Proofing One of the most important benefits of color management is the ability to proof your images on screen (called softproofing). As more files are printed direct to plate, making a conventional printed proof impossible, softproofing is becoming an essential feature. Photoshop 6 has bolstered its soft-proofing capabilities significantly, especially in letting you simulate how your image would look on newsprint or printed by an RGB inkjet, or by any other printing device

for which you have a profile.

Perhaps best of all for color novices. Adobe has combined all the color-preferences dialog boxes into one and offers several presets. Advanced users (and anyone who wants great color badly enough to learn what the knobs and buttons do) can skip the presets and customize the settings—especially the CMYK working space's settings for dot gain, ink setup, and so on.

Don't Forget to Profile No matter what Adobe does with its colormanagement tools, however, only

> you can take one of the most important steps: creating a custom monitor profile for your screen. There's no way to see accurate color without this profile. (You can use Adobe Gamma to create a reasonable one quickly, or a commercial suction-cup device to make a great one even faster.)

According to conspiracy theo-

A Web of Tools

rists, webs bind the CIA, FBI, and NSA. Adobe participates in a web, too-the Web. The company's Web tools are growing more powerful. Its ImageReady (now at version 3) continues to ship with Photoshop, and it helps you create rollovers, image maps, and GIF animations. However, the distinction between the two programs is becoming clouded. Photoshop 5.5 introduced Image-Ready's Save For Web dialog box to Photoshop users; now the Slice tool appears in Photoshop 6's Tool palette, too.

Image slicing lets you cut an image into portions that a Web browser can later piece together with an automatically generated HTML table. This way, you can save some continues

slices as JPEGs and others as GIFs to maximize file compression. In the Slice Options dialog box, you can assign <alt>alt> tags, URL links, and even message tags, which show up at the bottom of the browser when you roll over the slice area.

Automatic Slices Even better, just leave each section of your Web graphic (type, images, and so on) in its own layer and rely on Photoshop 6's Autoslice feature. That way, when your art director tells you to move all the buttons from one side to the other, the slices update automatically.

Liquid Assets

Liquify is a completely new ability that lets you push, warp, twirl, and expand an image as if it were fluid. You can edit images in ways that were formerly almost impossible without using Kai's Power Tools plug-ins (now KPT from Corel). But you should use Liquify with great restraint (at least in a professional environment).

Let's say you have an image of a bowl of raspberries, but a few don't look as juicy as you'd like. You could use the Bloat tool in the Liquify dialog box to plump them up, but it's easy to bloat too much and make the whole picture look unrealistic. Fortunately, the Freeze tool lets you apply the effect to one specific part of an image while leaving the rest of the image alone.

The Liquify feature is clearly a work in progress. You can access it only through a separate dialog box. You can't zoom in and out in the dialog box, nor can you use Bézier curves for precise adjustments. And Liquify can't change vector data.

Output Options

Photoshop 6 lets you save TIFF and PDF images with layers, spot colors,



A Horse of a
Different Color
Gradient Map
adjustment layers
offer a great way to
map a blend to an
image. Here the
masked effect covers
only part of the
graphic.

and other "extra" data. Previously, you needed third-party QuarkXTensions to import a TIFF image into QuarkXPress or InDesign and then open it in Photoshop to still see your layers, spot colors, and so on. But while maintaining this information is sometimes helpful, there's a good argument for keeping 100MB layered Photoshop files separate from their much smaller, flattened TIFF or EPS versions, especially when you're sending files to a service bureau. Ultimately, your workflow needs and the size of your removable media should dictate what's reasonable.

Adobe has also strengthened Photoshop's support for the Acrobat PDF file format. In previous versions, Photoshop's PDF files were rasteronly. Photoshop 6 can include vector shapes, text, and embedded fonts. You can also tell Photoshop to convert all text to outlines, though I don't recommend it—typically your file size gets enormous.

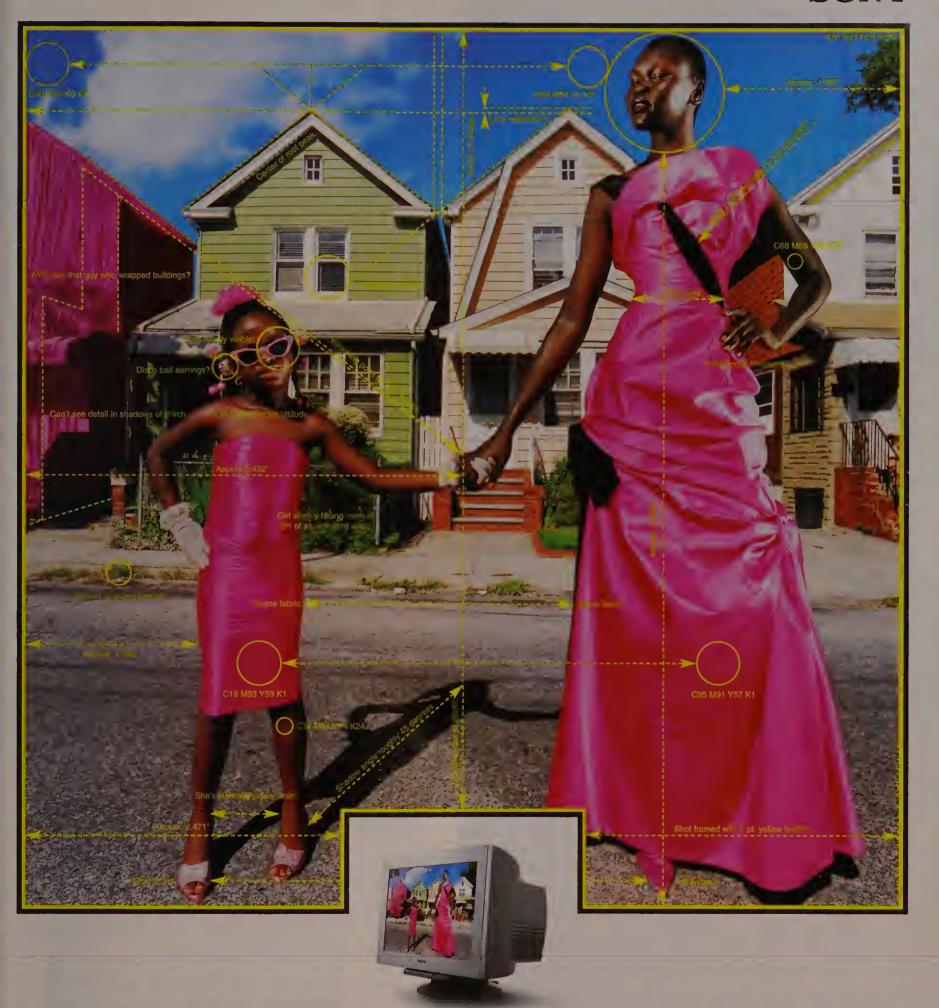
The Last Word

Photoshop 6 includes a torrent of other improvements, including better connection with GoLive 5 (for instance, drag-and-drop images you can optimize in GoLive); the ability to add annotations to an image (these

are also visible in Acrobat if you save the file as a PDF); a Print Options dialog box (for previewing before printing); the chance to save Photoshop actions as batch processes called *droplets*; and some extremely tweaky and technical tools to squeeze out every last bit of fat when you're saving Web graphics.

Of course, none of this stuff comes cheap. The upgrade alone is expensive (\$199 from Photoshop 5.X), not to mention the cost of buying more RAM and a larger hard drive. While the minimum requirements aren't too cumbersome—Photoshop 6 requires Mac OS 8.5 or later, at least 64MB of RAM, and hundreds of megabytes of hard-drive space—realistically you want more, faster, stronger, better. For the small-time user, Photoshop 6 might be like using a rock drill to open a walnut. However, if you work in a professional environment (either prepress or Web), the upgrade is a no-brainer. I may not fully understand Adobe's wicked intrigue, but now that I've worked with Photoshop 6 for a while, I'm happy to enter its new territory. m

DAVID BLATNER is a coauthor of the upcoming Real World Photoshop 6 (Peachpit Press).



SEE IN ULTRA-VIVID, PIXEL BY PIXEL DETAIL JUST HOW CRAZY YOU'RE DRIVING YOURSELF.

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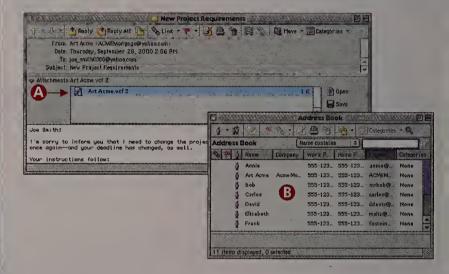
Entourage and other Office applications are connected, so you can access information across programs. To increase efficiency, you can create links between e-mail messages, your Entourage Calendar, and Office documents. Entourage's Reminders boxes appear in whatever Office application you happen to have open, and its Address Book is accessible from any program in the Office suite.

Say you're working on a project for a new—and demanding—client (we'll call him Mr. Acme of Acme Mortgage Company). He's changed your project's specifications three times and pushed your deadline up twice. Entourage's integrated information-management tools can help you get the project done exactly as he wants it—and exactly when he wants it. Our step-by-step demonstration of Entourage's abilities will help you put this program to work. **m**

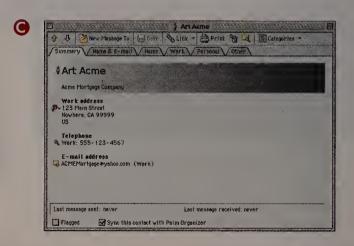
1

Create a New Address Book Entry A new client should have a new Address Book entry. Entourage allows you to create links between contacts' Address Book entries and their e-mail messages, and you can access Address Book contact information from within Word.

If Mr. Acme uses Entourage and has included a .vcf attachment —a contact-information file compatible with contact managers—in his message to you, that file is his Address Book entry. Simply import it to Entourage's Address Book by opening the Address Book window (#2) and dragging the file from Mr. Acme's message into it.



The result is an entire Address Book entry for Mr. Acme **©**, complete with his address, e-mail, phone number, and photograph (if he's included it)—no typing required.



If Mr. Acme hasn't included a .vcf file, or if he's using a different e-mail program, just double-click on his name in the From line at the top of his message to create an address book entry for him.



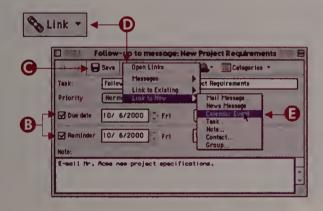
Create Reminders If you need to remind yourself to reply to on important e-mail messoge, you can flog the message for followup. You con olso creote o recurring entry in Entouroge's Colendor to remind you to work on o project.



Link to Your Project Links con connect Entouroge items to files in ony opplication. In this cose, we're linking o Colendor Event to a Word document.



Click on the flog icon (4) of the top of Mr. Acme's message, and choose Flog For Followup from the pull-down menu that oppears. The result is o new tosk—simply defined, o to-do item-linked with Mr. Acme's e-moil message.



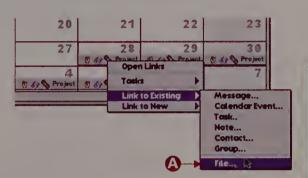
Enter the doy you're supposed to e-moil your reply in the Due Dote and Reminder fields 19. An on-screen Reminders box will oppear on that dote, and the tosk will be visible in your colendor. Click on Sove G. Click on the Link icon **O** and from the pop-up menu choose Link To New: Colendor Event **6**.



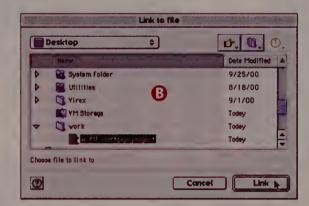
Moke sure All Doy Event is selected • ond enter the current dote **G**. Moke the colendor event recur doily for o week by clicking on the Recurrence button 🕕 ond then selecting the oppropriate information in the window that oppears. Sove the event.

Your colendor (#-4) now shows the event ond you'll get o reminder every doy until your deodline, whenever you open ony Office opplication.

In the Colendor window, click on the link icon in the colendor event, ond choose Link To Existing: File (4).



In the Link To File diolog box **B**, select your Word document.



Now oll the pieces ore linked together: Mr. Acme's e-moil message with the instructions you will need is linked to the tosk; the tosk is linked to the colendor event; ond the colendor event is linked to the Word document. You can novigate easily among these linked items.

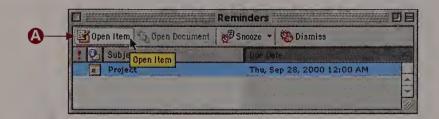
continues



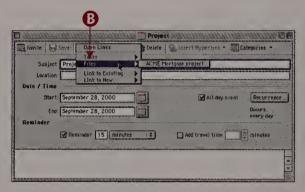
Get to Work When a Reminders box appears on your screen, simply use the links you've created to gather the elements you need to work on your project. There's no need to search through all of your files and e-mail messages.



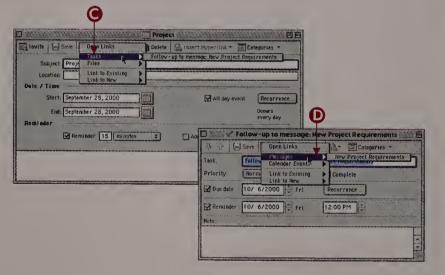
Wrap It Up As you're working on your project within Word, you have direct access to Entourage's Address Book, making it easy to personalize your document without having to look up or retype contact information.



When you see the Reminders box for the calendar event, click on Open Item (4) to open that calendar event's window.



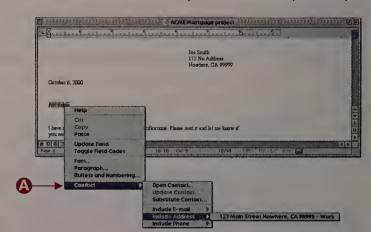
To edit your Word document, click on the link icon, choose Files **B**, and select the file you want to work on.



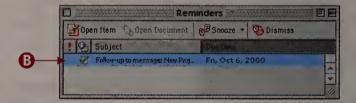
To access Mr. Acme's original instructions for the project, which are in his e-mail message to you, click on the Link icon again and open the task from the Tasks menu .

In the task's window, click on the link icon and choose Mr. Acme's original message from the Messages menu **①**.

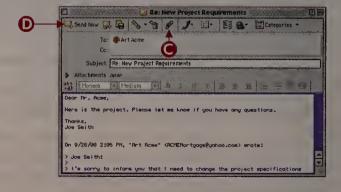
Start typing Mr. Acme's name. Word offers to autocomplete it for you, based on Entourage's Address Book entry. Press the tab key to accept.



If you've entered Acme's snail-mail address in your Address Book, you can add it to the letter just by control-clicking on his name and choosing it from the Contact menu (A).



On the due date, the task's reminder to send Mr. Acme your project will appear **3**. Click on Open Item to open the task. In the task window, follow the message link to open Acme's message as you did in step 4.



In the message window, click on Reply (\mathbb{H}-R). Type your reply, and then click on the paper-clip icon **(\mathbb{H}-E)** to attach your document.

Click on the Send Now button **①**, and you're all done.

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Starving for Storage?

Add a Second Hard Drive— All It Takes Is One Screwdriver and Five Minutes

Remember when a gigabyte seemed like an obscenely huge amount of hard drive space? That was before the days of digital video editing, 3-D animation, and CD-quality audio production—tasks that can burn through gigabytes in no time. Given today's data-intensive tasks, even the 12GB hard drives in some of the first-generation G3s and G4s seem puny.

Fortunately, it's easy to add another hard drive to these Macs, giving you plenty of additional storage. Installing a second internal drive on your Mac may seem like more trouble than simply plugging in an external FireWire or USB drive, but consider the advantages: internal drives cost at least \$100 less than their external counterparts, you won't have to make room for another peripheral on your already crowded desktop, and you won't have to untangle any additional cords and cables.

Yes, installing an internal drive will mean poking your fingers inside your Mac's case, but relax—with Apple's more-recent case designs, this is a pretty painless process. Adding a second ATA drive of 20, 40, or more gigabytes, as described in the steps that follow, should take only a few minutes. **m**

JOSEPH SCHORR is a coauthor of the soon-to-bereleased Macworld Mac Secrets, sixth edition (IDG Books Worldwide). 1

Remove the Original Drive To install your new hard drive, all you have to do is add it to the carrier that houses your original drive. But first you must remove the carrier from your Mac.



After you've unplugged your Power Mac, open its case using the latch on the side panel. Ground yourself by touching the metal on the PCI port covers a or the power supply box a. (Once you've done this, don't go walking around the room in your socks; stay put until you're done.)

Unplug the ATA and power cables from the internal drive. The ATA ribbon cable should detach easily. The power cable (the one with four wires) may offer resistance. Pull it firmly, but don't yank it. If necessary, use needle-nose pliers to grab the rectangular plug and pull it from the drive.

Remove the drive carrier **3**, which in most Power Mac G3s and G4s is situated in the third drive bay (closest to the rear of the computer, on the floor of the case). Unscrew the single Phillips screw from the front of the carrier and lift the carrier out.



Configure the New Drive Configuring your new drive requires moving or removing jumpers (small square pieces of plastic) from the side panel of your drive. The exact configuration depends on how you'll use the drive, the type of drive, and the type of Mac into which you're installing the drive.



Attach the New Drive Your next task is to screw the new drive to the carrier you removed in Step 1. The new drive should be locked into place just above the original hard drive.



First, locate the small array of tiny pins on the side panel of your drive, between the ATA and power jacks. Some of the pins may already be connected to one another by one or more jumpers **(A**).

Specific configuration instructions come with hard drives—and may even be printed on the drive. For example, using your drive as a primary drive in your system may require a jumper on the first pair of pins only. Using the drive as a secondary drive may mean removing all the jumpers.

You can use a sewing needle or a pair of small needle-nose pliers to pop off unneeded jumpers. Once the jumpers are properly set, you're ready to install the drive.



Slip the new drive into the upper portion of the carrier so that it piggybacks on the original drive. On the sides of the drive you'll see four screw holes that correspond to four holes (a) in the carrier itself. Use the screws that came with your drive to attach the drive to the carrier through these holes.

When you're done, the new drive will be attached above the original drive. It's normal for the tabs on the drive carrier to bend inward as you're tightening the screws, but make sure not to overdo it.

TIP: Make sure that when you buy your drive, you specify that you'll be adding it to your system as a secondary drive and that you'll need the extra screws to attach it to the carrier. Otherwise, you might not get them with the drive.

continues



Hook It Up Next is the simple matter of screwing the two hard drives into the drive bay and plugging the appropriate cables into your original drive and the newly installed one.



Initialize the New Drive Unless your drive came from the store preformatted for the Mac, you won't see the drive on your desktop when you start up the computer. You must initialize it so that your Mac can recognize it.



Slide the whole drive carrier into the computer case, lowering the back of the carrier in first **A**. Two metal tabs on the bottom of the carrier line up with slots in the bottom of the computer chassis. Slide the tabs into the slots, and then lower the front of the drive carrier into place. Attach it to the chassis using the Phillips screw you removed earlier.

You must reattach the ATA and power cables to both drives. The ATA ribbon cable has two plugs **3**, one for each drive. Align each plug with a drive and attach them to the corresponding ATA ports. Do the same with the power cables. Push all the cables on firmly. Close the case, plug in your Mac, and start it up.



The new hard drive, in place and plugged in.

Yolume Name(s)	Туре	Bus	1D	LUN
untitled	ATA	2	0	0
⟨not initialized⟩	ATA	-	1	8
<pre><dvd-rom drive=""> <not supported=""></not></dvd-rom></pre>	ATAPI ATAPI	0	0	9
This disk can be initialized.				

Most drives come with their own utility software for formatting a new hard drive, but you can also format a drive with the Drive Setup software that came with your G3 or G4. (If you can't find Drive Setup on your system, you'll find it on the system software CD that came with your Mac.)

Launch Drive Setup. You'll see your new drive listed as "not initialized" in the Drive Setup window. Simply click on the Initialize button to format the drive as a Mac disk. Initializing the disk takes only a few seconds. As soon as the process is done, your new disk will mount, ready for you to fill. And you will fill it—sooner than you think.



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Don Knisley, Network Engineer, US Air Force

Snap Servers are engineered for one purpose: file sharing. That's why Don could have a Snap Server 2000 up and running on a LAN in 43 seconds! "If I had the choice of installing an NT server for network storage or a Snap Server, I'd pick the Snap Server," says Don. "It's fast, easy and the browser configuration tool is very intuitive." Visit www.snapserver.com/install to read Don's story and virtually install a Snap Server yourself.

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www.snapserver.com 1.888.343.SNAP

Slide Show to Go

Turn Your PowerPoint Presentations into QuickTime Movies

Your company, WidgetWorld, just invented the hottest new gadget on the market, and now it's up to you to attract some rich investors. You've spent hours in Microsoft PowerPoint perfecting your sales presentation—complete with fading transitions, captions, and narration—and now you're ready to send your pitch off to potential moneybags across the country. Unfortunately, you don't know whether they actually have PowerPoint on their computers. Of course, you could save your work as a Web presentation that would display in their browsers, but this means losing attractive motion effects such as slide transitions and necessitates clicking from one slide to the next.

There is another option. The version of PowerPoint in Microsoft's Office 2001 suite lets you save your presentations as QuickTime movies. In contrast to the motionless slide show you'd get with a Web presentation, QuickTime movies can include a soundtrack and transitions such as fades, wipes, or scrolling. And since QuickTime movies run equally well on Macs and PCs, chances are everyone can enjoy the show. Here's how to transform your PowerPoint presentation into a fluid QuickTime movie.

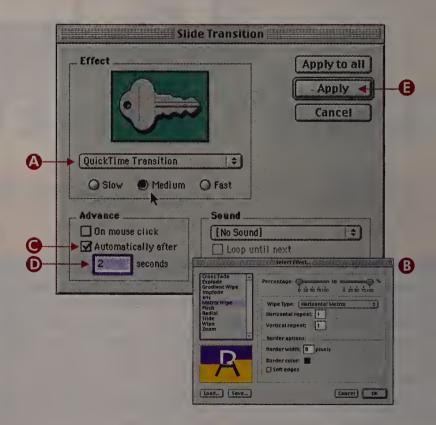
STEVE SCHWARTZ (www.mediacity.com/~sschwartz) is a coauthor of the official guide to Office 2001, Running Microsoft Office 2001 for Macintosh (Microsoft Press, 2000).

1

Modify Your Presentation Although you can turn any PowerPoint presentation into a QuickTime movie, to get the best results, you'll want to design your movie keeping a few limitations in mind.

PowerPoint enables you to generate two types of movies: sprite-based (these support text animations, working hyperlinks, and PowerPoint transitions) and frame-based (these offer only QuickTime transitions). Which one you create depends on which features are higher priority for you. Since QuickTime transitions result in the smoothest playback, we'll focus on creating frame-based QuickTime movies. (Note that if your presentation already contains animations, you don't need to remove them for frame-based movies. They will appear as a static image.)

To set QuickTime transitions, select each slide, one at a time; open the Slide Show menu; and select Slide Transition.



In the Slide Transition window, choose Select QuickTime Transition from the pop-up menu (A). A new window (B) appears, offering a choice of transitions and display options. Click on OK when you've finished making your choices.

Back in the Slide Transition window, set how long each slide will play by selecting the Automatically After option **©** and specifying the number of seconds **①**. Click on Apply **③**.

continues



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Circle 126 on card or go to www.macworld.com/getinfo



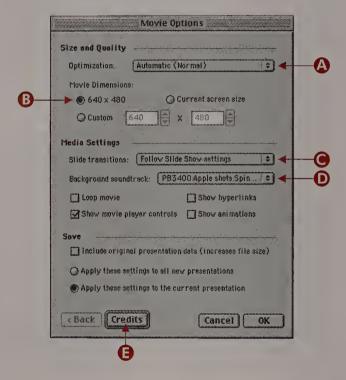
Set Movie Options Now you're ready to turn your presentation into a QuickTime movie. The settings you choose in the Movie Options dialog box determine the movie's output quality and features.



Generate and Review the Movie

Once you've chosen the export settings, you're ready to create your movie. (To see samples of finished movies, go to www.mocworld.com/2001/01/howto/powerpoint extra.html.)

Open the File menu ond select Moke Movie. In the Save diolog box that oppears, click on the Adjust Settings rodio button; then click on Next. This opens the Movie Options window.



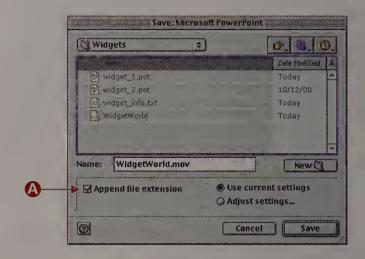
First choose the optimization level **A**.

Optimizing for quality will result in smooth playbock but a large file. If you plan to put your movie online, however, you'll want to optimize for size. You can increase Movie Dimensions **B** beyond the traditional 640 by 480 pixels, but you may get jumpy playbock.

Since you specified your individual slide transitions in step 1, choose Follow Slide Show Settings • under Medio Settings. (For a sprite-based movie with hyperlinks or text animations, you'll instead need to set Slide Transitions to None, and enable both the Show Hyperlinks and Show Animations check bases.) For the Background Soundtrack •, choose any QuickTime-compatible audio file, such as an MP3, WAV, or AIFF file.

Click on the Credits button **(3)** to odd identifying information, such as a cost list, that will appear when viewers choose Get Info in QuickTime Player.

When you click on OK in the Movie Options window, the Sove diolog box reoppeors.



Before you click on Sove, moke sure you click on the Append File Extension check box **(A)**. Adding o .mov file extension not only ensures that Windows users will be oble to ploy the movie, but also prevents you from overwriting the original presentation by mistake. Click on Save to generate the movie.



You con now view the movie in QuickTime Ployer ③ or onother QuickTime video application. Since PowerPoint doesn't let you preview your presentation as a QuickTime movie before you export, you may need to return to PowerPoint to fully synchronize your slide transitions and soundtrack and then repeat the export process.

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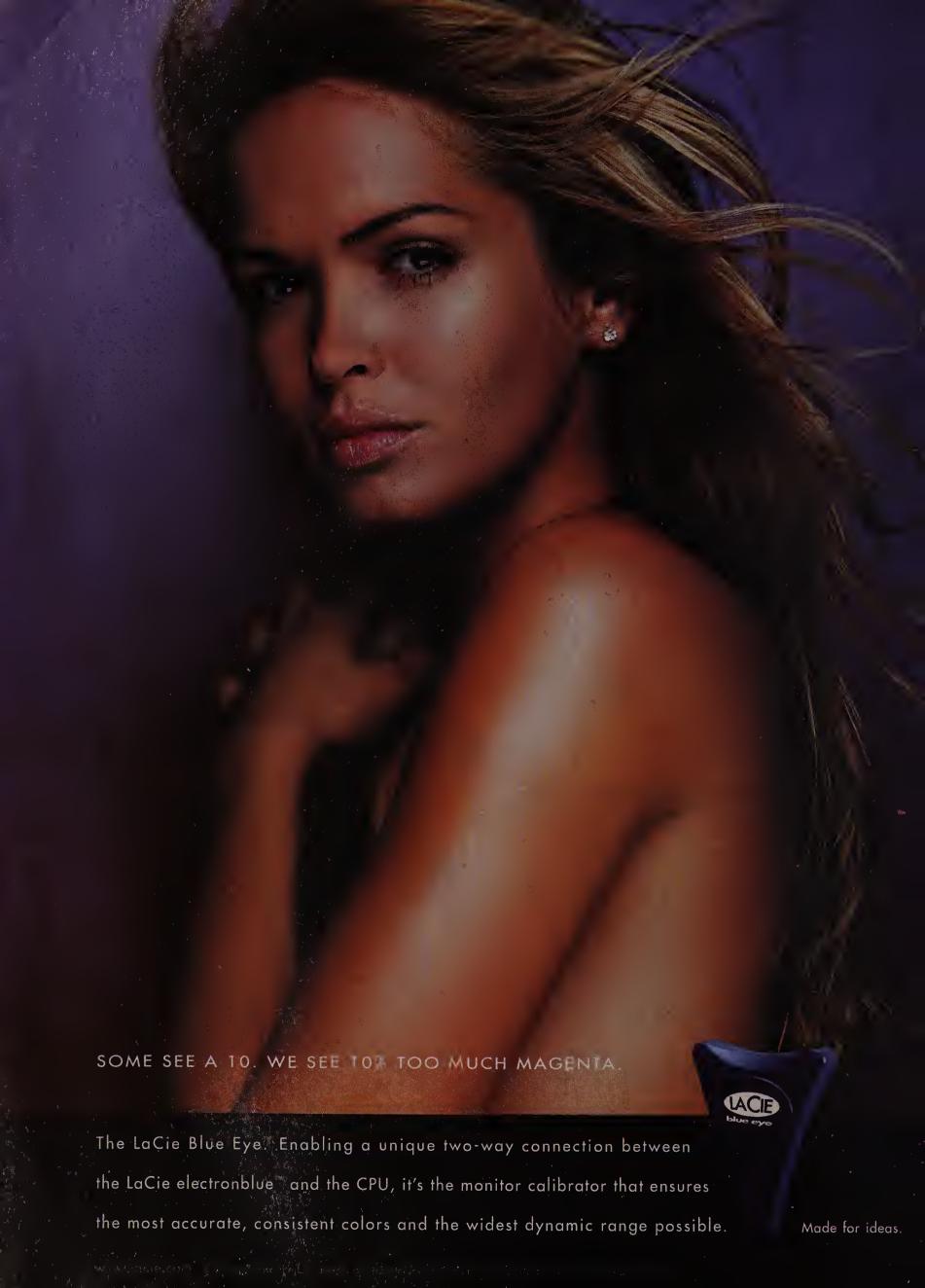
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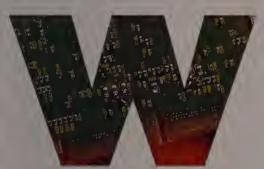
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Mac 911



e're moving wholly into the twenty-first century, so I'd like to acknowledge that the year responsible for propelling Also sprach Zarathustra back into the charts after a 73-year hiatus also marks the 32nd anniversary

of Sesame Street. To commemorate this momentous event, we celebrate the letter S with questions concerning slide shows, startup disks, and soundtracks.

Slip-Sliding Away

Our first sibilant inquiry comes from Jeff O'Dea, who e-mails from Japan to tell us he would like to organize his digital photos into a slide show he can display on his Mac. I have several suggestions, so let's categorize them by price: better-than-cheap, cheap, and not-so-cheapunless-you-already-have-a-copy.

My better-than-cheap solution costs exactly the price of one postcard and a stamp. Not only is Aaron Giles's JPEGView 3.3.1 (www.macdownload.com) a great utility for viewing JPEG files—the graphics format used by digital cameras—but it also lets you create slide shows in which pictures flip at preset intervals or whenever you press a key on your Mac's keyboard.

My cheap solutions comprise three shareware programs and two commercial applications. The shareware programs are OneApp Slide Show (\$25), from OneApp Software (www.oneappsoftware.com); GraphicConverter (\$30), from Lemke Software (www.lemkesoft.com); and iView Multimedia (\$25), from Script Software (www .iview-multimedia.com). Offered at a similar price is Totally Hip Software's (www.totallyhip.com) commercial slide-show application, LiveSlideShow (\$30). Apple's iMovie2 (www.apple.com/imovie) rounds out the group with a list price of \$50.

OneApp Slide Show and LiveSlideShow were designed specifically to create slide shows; they allow you to add goodies such as soundtracks and transitions.

iView Multimedia is a terrific multimedia assetmanagement utility with slide show capabilities. And GraphicConverter, an indispensable graphics-conversion utility, also contains some advanced slide-show functions.

Using iMovie2 you can import still images, determine how long each image appears on screen, insert transitions between images, and set the whole mess to music. Best of all, you can play the slide show on any Mac or PC outfitted with a copy of QuickTime Player.

The not-so-cheap-unless-you-already-have-a-copy solutions are Apple's AppleWorks 6.0.4 (\$80; www .apple.com) and Microsoft's PowerPoint (\$340; www microsoft.com). Although PowerPoint and the presentation component of AppleWorks are intended for moreformal presentations, there's nothing to keep you from using them to stupely your friends with pictures of your trip to Yellowstone.

Start Me Up

Ken Schneidman, who (perhaps just for the cool cachet) claims to write from Woodstock, New York, would like to create a startup Zip disk for those times when his beloved Mac won't boot. Unfortunately, Ken has a System Folder continues

so jam-packed with extraneous gunk that it won't fit on the Zip. He wonders which items to include on such a disk.

Well, Ken, you wouldn't have to worry about getting caught in this particular devil's bargain if you had a recent copy of Iomega's Tools application.
Iomega has done most of us a favor by adding a Rescue Disk component to its Tools utility. You just insert a Zip disk and click on the Rescue Disk icon, and Rescue Disk installs a minimal

Rainmaker You can adjust QuickTime soundtracks individually using QuickTime Player's Volume slider.

System Folder on your Zip disk. Rescue Disk will also install a copy of Apple's Disk First Aid or, if you ask the program to do so, transfer a repair utility from your Mac to the Zip disk. If you choose to install a third-party repair utility, however, make sure to include any necessary support files; recent versions of Norton Utilities require the Norton Shared Lib extension, for example. You can find your copy of lomega's Tools (part of the free lomega-Ware) at www.iomega.com/software/featured/ioware25 mac reg.html.

While everything may be stardust and golden for Ken, others with brand-new, Zip-less Macs—the new iMacs, Cube, and Power Mac G4s—may require a different kind of rescue disk. As we go to press, you can't boot these Macs with recent copies of diagnostic and repair utilities such as Symantec's Norton Utilities, AlSoft's Disk Warrior, and MicroMat's TechTool Pro. Although you should be able to purchase a compatible CD-ROM for all these products by the time you read this, users who

Tip of the Month

Apple's Disk Copy allows you to turn off the Verify Checksum option so that the program never goes through this time-consuming process. But with a simple trick, you can decide whether to verify the checksum for each self-mounting image file you mount: just hold down the option key when mounting a disk image, and Disk Copy will skip the verification process.

Remo Del Bello

West Hollywood, California

have a CD-R burner will find it less expensive to simply create a bootable CD-R and copy their diagnostic and repair utility of choice to it.

Stormy Weather

Finally, Chris Higgins, of Columbia, South Carolina, is interested in combining three discrete sound effects—rain, wind, and thunder—to create the perfect storm in a QuickTime movie. "Can it be done?" that Chris inquires. "Natch," this Chris replies. If you have Apple's

QuickTime Pro (\$30; www.apple.com), it's a cinch.

Launch QuickTime Player to create a new movie. From the File menu, choose Import and select one of the sound effects you'd like to hear throughout the soundtrack—the rain effect, for example. If you want the sound to play longer, press #-A to select the sound, #-C to copy it, and #-V to paste that copy at the end of the soundtrack.

Create a new player window and import another sound file—say, the wind sound. Select and copy this wind sound, then select the window with the rain sound-track. Click on the point within the rain soundtrack where you'd like to insert the wind sound, hold down the option key, and choose the Add command from the Edit menu. The wind sound is now layered on top of the rain sound. Repeat this process to add the thunder sound.

You can change the volume of each sound individually by choosing Get Info from the Movie menu and selecting the first soundtrack (conveniently labeled Sound Track 1) from the left pull-down menu. Next, choose Volume from the right pull-down menu, and adjust the Volume slider up or down (see "Rainmaker"). Do the same for the other soundtracks until you have a pleasing mix. Save the movie, and you're done.

Contributing Editor CHRISTOPHER BREEN offers Mac tips and tricks each business day via the Macworld Daily Tips and iTips newsletters. Visit http://lists.macworld.com to subscribe.

Share tips and discuss Mac problems with other Mac users in the Mac 911 Forum (www.macworld.com/subject/mac911). Also send tips by e-mail to mac911@macworld.com. We pay \$50 for tips selected for publication in Macworld. All published submissions become the sole property of Macworld.

Shareware and freeware mentioned in *Mac 911* is available from the Macworld Online software library (www.macdownload.com).





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Camon Know How

Office 2001

Evolutionary Upgrade to Productivity Suite Brings New Application, Welcome Features

OFFICE 2001

Overall: 🕴 🛊 🛊

Entourage: ### 1/2

Excel:

PowerPoint: ####

Word: **‡‡‡**

Pros: Tighter integration among applications; many useful new features; more-uniform interface.

Cons: No printed or electronic manual; Entourage's calendar needs work; steep upgrade price.

List price: \$499; upgrade, \$299 Company: Microsoft, 800/426-9400, www.microsoft.com/mac

MACWORLD'S BUYING ADVICE:

Although you can find alternatives to all the programs in the Office 2001 suite, they won't benefit from the level of integration this package offers. If you're new to Office—or if you're still limping along with Word 6.0—now is as good a time as ever to jump in. (Keep in mind, though, that Microsoft recommends at least a 120MHz PowerPC.) Current Office users face a tougher decision that boils down to economics—the \$299 upgrade cost is just too steep, especially for the home and SOHO users Microsoft claims it wants to please.



ore than three years have gone by since Bill Gates grinned down upon the Mac faithful and promised to continue releasing new versions of Microsoft Office until at least 2002. No matter how cynically you regard Microsoft's motivations, there's no denying that the company made an excellent start on fulfilling its pledge when it released Office 98 less than a year later. From its drag-and-drop installer to its abundant innovations, Office 98 was a revolutionary, must-have upgrade (Reviews, June 1998).

Office 98 presented such a dramatic improvement over its abysmal predecessor that another equally compelling upgrade was probably too much to hope for. Not surprisingly, Office 2001 is a more evolutionary release. Still, the suite's three central

applications—Word, Excel, and
PowerPoint—sport many welcome
changes geared toward home and
SOHO users. But Entourage—a PIMenhanced version of Outlook Express,
Microsoft's free e-mail client and
newsreader—feels more like a work
in progress.

Out of the Box

Office 2001 ships in an eye-catching plastic clamshell that contains a CD-ROM but no printed manuals. While Microsoft's commitment to conservation is admirable, new and upgrading users alike will be disappointed to discover that Office has no electronic manual, either. Instead, you have to use the online help system, which feels to us like exploring an intricate cave without a map. (At least the Office help assistant responds appropriately when you ask "What's new?",

describing the new features in whatever application you're using.)

The first change you'll see when you fire up Word, Excel, or Power-Point is the new Project Gallery, a feature designed to help neophytes get started with their projects. The Project Gallery presents a hierarchical list of project categories; select one, and previews of corresponding document templates appear on the right (see "Project Choices"). If you try to open a template for an Office application that's not already running, Office launches it for you. (The Project Gallery appears by default, but you can turn it off if you don't like it.)

Many Office 2001 features aim to provide a more uniform interface for users who routinely jump back and forth between Word, Excel, and PowerPoint. For example, the new Formatting palette, accessible from all three programs, contains tools that change to suit the object you're editing. If you find the palette obtrusive, you can customize Office's Formatting tool bar with the tools you use most often.

Another feature, the Office Clipboard, lets you copy and paste multiple pictures or formatted text clippings from and to Office documents. Although the Office Clipboard is more versatile than the standard Macintosh Clipboard and Scrapbook, there's no way to transfer items to it directly from non-Office applications, even Internet Explorer. And the Clipboard displays text blocks with formatting intact, so the text can sometimes be too small to read (see "Office Pasteboard").

All four Office applications now share Microsoft's Encarta World English Dictionary, which defines both words and simple phrases. However, only Word and Entourage let you view definitions by controlclicking on problem terms; accessing the dictionary from PowerPoint and Excel requires additional typing.

If you're already an Office user, or if you need to share files with someone who uses a Windows PC. you'll be relieved to know that Office 2001 is compatible with Mac Office 98 and Windows Office 2000 files.

A Better Word

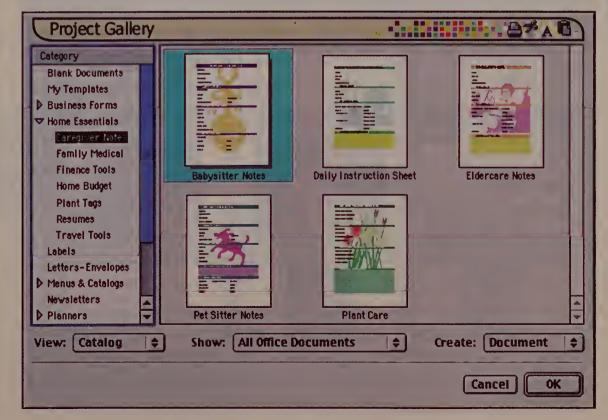
The enhancements to Word, Office's flagship application, range from cosmetic to brilliant. Our favorite new feature, Live Word Count, displays a real-time tally of the document's total word count in the status bar, along with the number of words before the insertion point. (If you highlight a block of text, the latter counter changes to show the number of words in the selection.) Although this may seem like a small thing, writers will appreciate being able to keep tabs on their productivity without resorting to the Tools menu.

If you've ever struggled with complex document layouts, you'll love Click And Type, which makes it painless to place text in Page Layout view. To insert a title, for example, you simply point to the middle of the page, double-click, and begin typing-Word inserts extra lines and tabs for you as needed. As you mouse over to the edge or center of the document, the l-beam cursor changes to show whether Click And Type will leftjustify, right-justify, or center any new text you type. Word 2001 also lets you edit headers and footers by doubleclicking at the top or bottom of the page, another welcome time-saver.

Word 2001's vastly improved table tools let you create tables within tables, and new border styles make it easy to produce tables that look good on the Web. Placing tables is also easier than ever—you can resize and position them by dragging, and text reflows around them as they move.

On the downside, Word 2001 suffers from bugs that range from annoying to nasty. Documents with lengthy tables, for instance, slow Word to a crawl, and printing complex documents isn't as fast as in Word 98. (To Microsoft's credit, representatives of the company's

continues



Project Choices The Project Gallery—accessible from Word, Excel, or PowerPoint—lets you choose templates for a wide variety of home and business projects.

Macintosh Business Unit have responded to early complaints about Office 2001 in online discussion groups and mailing lists.)

Spreadsheets for Everyone

With its grid lines, functions, and formulas, Excel has always been the most intimidating of Office's three core applications. Thankfully, several features in Excel 2001 make the program more accessible to first-time spreadsheet users.

Anyone who uses Excel to maintain home inventories or other simple lists will find a lot to cheer about in this version. If Excel senses that you're typing a list, for example, it offers to convert your data into a list object, complete with clickable column headers that can sort data in ascending or descending order (see "Easy Lists"). The List Manager palette offers convenient access to a suite of tools that simplify formatting and customizing existing lists.

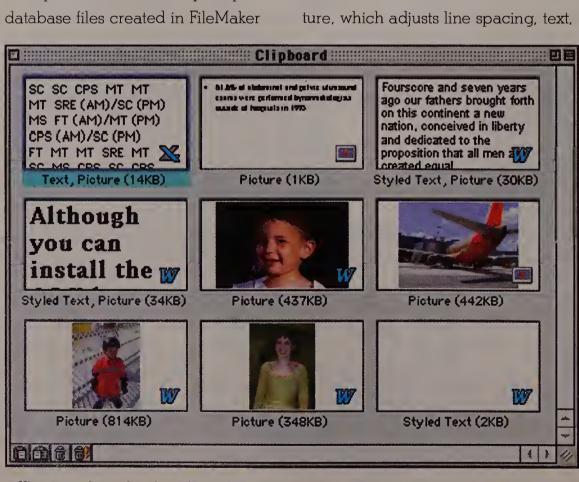
Other new features make it easier to import data from other sources. For example, Excel 2001 lets you open database files created in FileMaker

Pro 3.0 and later. Using Excel's FileMaker Import Wizard, you can even select which fields and records to import. Importing information from the Web is also a snap: to transfer a table of financial data, select it in your browser, then drag and drop it onto your spreadsheet.

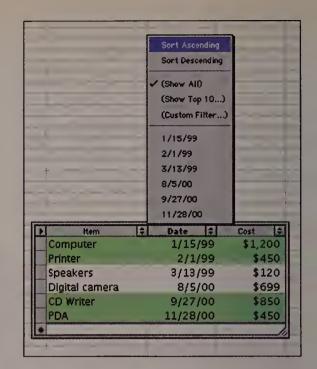
One change sure to upset veteran Office users is Excel's suite of keyboard shortcuts, which has been remapped to match Word's. For example, #-B, which cleared a cell's contents in Excel 98, now sets the text format to bold. We would be happier if Excel allowed the user to remap or customize any keyboard shortcuts, as Word does.

Faster Presentations

Many of PowerPoint 2001's improvements boost efficiency. Unlike previous versions, this one lets you display a presentation's outline, notes, and slides in a single tripane window so you won't waste time jumping between views. Frazzled users facing tight deadlines will also be thankful for PowerPoint's new Autofit Text feature, which adjusts line spacing, text,



Office Pasteboard The Office Clipboard offers convenient access to text and graphics, but some formatted text is difficult to read in this view.



Easy Lists Pop-up menus in Excel lists make it simple to sort and filter data.

or both to prevent text from running off the edge of a slide.

PowerPoint 2001 also sports improved design tools. For the first time, you can apply a template to any slide in a presentation without affecting the other slides. Support for graphical and autonumbered bullets is another welcome addition, and you can now create tables in PowerPoint without having to import them from Word or Excel.

Beefed-up animation functions, including exit effects and Quick-Time-based slide transitions, will please PowerPoint users who rely on electronic presentations. PowerPoint 2001 also lets you save files as QuickTime movies, now Microsoft's preferred format for sharing presentations with anyone who doesn't have PowerPoint. Unfortunately, some presentations don't translate well to the QuickTime format.

We were also disappointed to learn that Microsoft hasn't rectified a text-editing bug that affected Power-Point 98. When you try to edit white text on a slide with a graphical background, the entire text block turns white, making it impossible to see what you're doing unless you view the presentation in grayscale. And, like

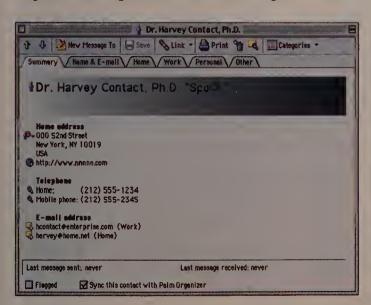
the previous version, PowerPoint 2001 is a memory hog: even some modest presentations refused to run until we boosted PowerPoint's RAM allocation to 30MB, and slide shows containing OuickTime movies often demanded more than twice that amount.

Entourage: Rough Edges

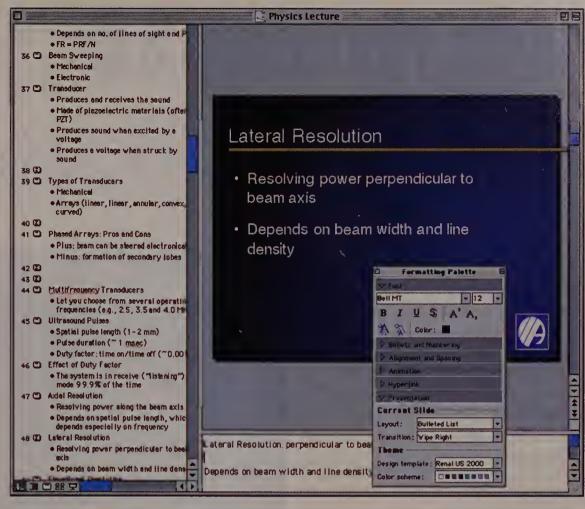
For many people, written electronic communication has become such an integral part of their daily routine that a single application combining email, calendar functions, and contact management would be invaluable. Alas, while Entourage is on the right track, it still has a way to go.

Entourage offers all the e-mail functions of Microsoft's excellent Outlook Express (****1/2; Reviews. March 2000), along with several useful new features. For example, it lets you drag mail folders onto the desktop, where they turn into text files in the MBOX format—a quickand-dirty way to back up or export messages. If you're already using an e-mail program, Entourage provides one-step importing of messages from Qualcomm's Eudora, Netscape Communicator, and Claris Emailer, as well as Outlook Express.

As a newsreader, however, Entourage is no better than Outlook Express. Along with its other failings,



Close Contact In Entourage's detail view, if the contact has an e-mail address you can compose a message by clicking on the New Message To button.



Great Panes You can resize PowerPoint's outline, slide, and notes panes by dragging the dividers that separate them.

Entourage insists on sorting message threads alphabetically—a prohibitive annoyance for dedicated Usenet jockeys, who want to see newer postings first. If you spend much time reading newsgroups, you'll probably want to stick with your current newsreader.

Entourage's contact manager is the more polished of its two core PIM modules. An overview window shows all your contacts, with column

> headings that sort the list when you click on them. As an added bonus, the Entourage address book integrates nicely with Word; if you type the first few letters of a name from your contact list in Word, for example, the program offers to fill in the rest of the name for you. The thoughtfully designed contact detail view has five panes for personal data and one summary pane (see "Close

Contact"). Surprisingly, Entourage lacks autocompletion and capitalization during data entry.

The calendar is more of a mixed bag. Entourage provides day, week, month, and list views, but they're not as feature-complete as those of competing Mac PlMs. For instance. overdue tasks don't appear in the main calendar window-to see them, you have to open the list view. (They do show up if you click on the Office Reminders control strip module, which you can download from Microsoft's Web site.) And while Entourage lets you sync your calendar with Palm OS organizers, you can't specify a range of dates to synchronize, nor does it support categories from DateBk4, Pimlico Software's popular shareware Palm calendar. Although AppleScript-savvy users can program workarounds for many of Entourage's shortcomings, we'd rather see Microsoft make needed changes to the application itself.—FRANKLIN TESSLER

Adobe Photoshop 6.0

Upgraded Standard Puts Pixel Power and Vector Precision in a Slick, Flexible Package

ADOBE PHOTOSHOP 6.0

Rating: \$\$\$\$1/2

Pros: Strong typographic control; superb integration of raster and vector elements; improved color management; sleek, streamlined interface.

Cons: Weak documentation; online help requires Web browser.

List price: \$609

Company: Adobe Systems, 800/833-6687, www.adobe.com

MACWORLD'S BUYING ADVICE:

Photoshop 6.0 is a superb upgrade to an application that was already tops in its class. Whether you use it for Web design, prepress production, digital photography, or fine art, you'll find dozens of new features in version 6 that will make you wonder how you managed without them. The best just got a whole lot better.



Instant Options The new Options bar presents the options for the current tool—in this case, the crop tool, with the cropped area darkened. The soft-proofing feature shows how this image will print on an Epson 1270 and on Macworld's press.

ere Adobe Photoshop locked in a death struggle for dominance with another image editor, the scope and quality of its latest upgrade would be less surprising. But considering the program hasn't had a serious competitor on the Mac in years, Photoshop 6.0 is much better than it needed to be. It offers a lot of new features, and it puts them in a more comprehensible user interface than ever. Photoshop celebrated its tenth birthday this year, and the new version shows a polish and maturity that younger applications simply can't attain. No matter how you use Photoshop, this is a must-have upgrade. If you haven't used Photoshop before, you'll be pleasantly surprised

by its power and depth: it has something for everyone.

Beyond Pixels

Photoshop isn't just about pixels anymore. New Shape tools let you create a huge variety of sharp-edged, editable, vector-based shapes, including text. And you can achieve startling effects using vector layers with attached Layer Effects such as glows, bevels, shadows, patterns, and gradients (now grouped together as Layer Styles you can save). Because vectors are much more memory-efficient than pixels, type effects that used to result in multimegabyte files now take only a couple hundred kilobytes.

But the real magic is in the many ways you can integrate vector- and

pixel-based elements. Vector layer masks let you apply a clipping path to a layer rather than to the entire image, hiding the layer content that lies outside the path. You can clip layers with vector shapes, apply layer effects, and use Photoshop's blending modes to quickly make everything from chiseled type to 3-D buttons.

In the new version, you create type directly on the canvas instead of in a modal dialog box. The type remains editable and on its own layer; you can still use Photoshop's sophisticated typographic controls, including a new multiline composer for hyphenation and justification. In fact, Photoshop is now arguably the most typographically sophisticated of Adobe's applications: it lets you do anything with type that you can do with other vector elements, so the range of typographic treatments is enormous.

Layer It On

But Photoshop's forte is still image editing, and version 6's layer-management enhancements make creating complex, multilayered images much easier. The 99-layer limit is gone, and you can group layers into sets and treat them as a unit. You can also lock a layer's transparent pixels, its nontransparent pixels, and its position. For Web graphics, you can create slices—separate image regions that can have their own HTML code attached—directly in Photoshop. And the program can create slices based on layer content, making it easy to create rollovers, animations, and other Web effects. (You'll still want to use ImageReady to save slices as sets and to create rollover styles, however.)

Support for 16-bit channels got a shot in the arm: you can work in 16-bit-per-channel Lab color mode in addition to RGB, grayscale, and CMYK. The new Gradient Map fea-

ture, which is 16-bit enabled, gives you another way to produce custom grayscale conversions or create the kind of surreal landscapes Dave encountered in 2001: A Space Odyssey. Some filters-including Unsharp Mask, Gaussian Blur, Median, Dust and Scratches, Add Noise, and High Pass—now work on high-bit images, as do Resize Canvas and the History Brush.

Control the Power

Photoshop's interface continues to mature, letting you control both old and new features with a minimum of fuss. The most obvious new element is the Options bar, which appears by default under the menu bar and replaces the Options palette. It holds both the options for the currently selected tool and the palette well, where you can store palettes with a single click (though they disappear as soon as you click outside them).



Less and More You can create this image in Photoshop 5.5, but in 6.0 it's a two-layer, 160K file, and the text is still editable.

Some improvements are subtler. When you use the crop tool, for example, the cropped area darkens, and you can control the color and opacity of that area. But my favorite is the clipping display in Levels—you simply hold down the option key as you move the black-and-white-input sliders to see exactly which pixels are being cropped, without introducing psychedelia to the rest of the screen.

Color Management Done Right

Adobe has completely revamped Photoshop's color architecture, but in a much less confusing way. For

example, the color settings are now combined in a single dialog box. You can set the color behavior to emulate Photoshop 4 or 5 if you wish, but Photoshop 6 offers "per-document color," which leaves each image in its own color space. This frees you from having to convert all your images to a single working space, and forced color conversions become a thing of the past.

Photoshop 6 keeps track of your profiles and makes it nearly impossible to embed the wrong profile when you save an image. You can preview RGB and grayscale output as well as CMYK, a boon if you're outputting to a photorealistic ink-jet printer. You can even control which profiles show up in Color Settings when you work with the Advanced Mode checkbox turned off—no need to wade through dozens of irrelevant ones.

Short of Perfect

Photoshop 6 hasn't quite attained perfection. Its integration with Image-Ready has improved, but the two still have some annoying interface discrepancies. Support for spot color is still dicey—the only way to tell how a spot color will appear in print is to print it. The documentation is inadequate; for basics such as making color and tonal adjustments, you're referred to the online help. Worse, that online help is in HTML formyou have to run a Web browser in addition to Photoshop, which can cause instability. If you already know Photoshop, the user interface enhancements will help you assimilate the new features pretty painlessly, but new users should prepare themselves for a learning curve.

Nonetheless, Photoshop's shortcomings are quite minor compared with its strengths. This is by far the best version of Photoshop we've seen.—BRUCE FRASER



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Color Workgroup Laser Printers

Latest Models Deliver Higher Speed,

Better Image Quality at Reasonable Prices



olor laser printers used to be big, slow, complicated beasts that were difficult to set up and often slow to operate. They're still big, complicated beasts that can be difficult to set up, but today's color lasers are faster than their predecessors and do a much better job of rendering color images.

We took a look at seven color workgroup laser printers ranging from the relatively inexpensive \$1,929 Lexmark Optra C710 to the \$5,549 Hewlett-Packard Color LaserJet 8550N. Though there are differences from printer to printer, all the models in our roundup produced good results—you really can't go wrong with any of them.

Get Rolling

Color laser printers have always required far more setup time than

monochrome printers. Among the models we tested, the only exception was the Xerox Tektronix Phaser 850DP; because it uses preinstalled solid-ink sticks rather than toner, there's little more to do than plug it in. Fortunately, each printer comes with thorough, easy-to-follow instructions that make the process almost painless.

Most of the models can print at either 600 or 1,200 dpi. The exceptions are the Hewlett-Packard, which can't print at 1,200 dpi, and the Brother HL-2400CeN, which prints at either 600 or 2,400 dpi (though we needed to add another 128MB of RAM to print our Adobe Photoshop image at the higher resolution).

Paper handling is much improved over previous generations of color lasers: with easy-access trays and continues

MACWORLD'S BUYING ADVICE:

If you're shopping for a color laser printer, you probably need a fast model that can handle a lot of throughput rather than one with exceptional image quality. In that regard, the Hewlett-Packard Color LaserJet 8550N is far sturdier than the competition and delivers good quality. Unfortunately, it's also far more expensive than its rivals. The Xerox Tektronix Phaser 750DP alone produced good output under all conditions, but it too is rather pricey.

With a price in the lower range as well as overall good quality, the NEC SuperScript 4650N emerges as the winner. Although it lacks support for 100BaseT networking and fared poorly on one graphics test, its speed, capacity, and quality make it a solid performer at a very reasonable price.



simple icons, these printers make it a snap to load paper and clear jams. The pricey Hewlett-Packard offers the beefiest workgroup support, with an 1,100-sheet paper tray and a 3.2GB internal hard drive. Other than Minolta's magicolor 2200EN, with its 500-sheet tray, the rest have typical 200- to 250-sheet trays.

But the top concerns with workgroup printers are connectivity and speed. All the printers except the NEC SuperScript 4650N support 100BaseT, and all are fast: most clocked in at a respectable 16 text pages per minute, although the Hewlett-Packard had the edge at 24 ppm. When we printed at 1,200 dpi, most of the printers were able to maintain their speed. The Tektronix Phaser 850DP, however, took four times longer to print at the higher resolution than at the lower.

Smooth Operators

All seven printers we jury-tested did a good job of producing smooth text. At the toner-saving resolution of 600 dpi, most produced perfectly acceptable results, although text was a bit more jagged and overall contrast was lower. Only the Minolta's 600-dpi results were excellent, with sharpness rivaling that of 1,200-dpi output. At 1,200 dpi, output was excellent from

Built for Speed Macworld LAB TEST								
Best results in bold Shorter is better	MICROSOF	T WORD 9B	ADOBE PHOTOSHOP 5.5					
Brother HL-2400CeN		3:23	5:29					
Hewlett-Packord Color LaserJet B550N		2:15	4:15					
Lexmark Optro C710		2:47	2:16					
Minolta magicolor 2200EN		2:26	3:20					
NEC SuperScript 4650N		3:01	2:21					
Xerox Tektronix Phaser 750DP		2:58	1:31					
Xerox Tektronix Phaser 850DP		5:19	1:20					
	▲ Better	∢ Better						

Times are in minutes:seconds. We tested these models by printing a 40-page Word 98 document and a 19MB Photoshop image at 600 dpi. Times were measured from the moment we pressed the print button to the moment the last page fully emerged from the printer. The test system was a Power Macintosh G4/500 running Mac OS 9.0.4, with 12BMB of RAM and virtual memory enabled.—Macwarld Lab testing by Ulyssis Brava

all but the Tektronix Phaser 850DP. And as you would expect, pages from the Brother's super-high 2,400dpi resolution looked superb, though not phenomenally better than those of the top-testing 1,200-dpi units.

Clear as Mud

If you've ever printed images on a high-quality color ink-jet printer, odds are you'll be disappointed with colorlaser output. With their slightly dull tone, frequent dynamic-range trouble, and occasional artifacts, images printed on color lasers are simply inferior. But the machines do speedily produce prints that are durable and cost-effective, and their image quality is generally good enough for most business applications.

In our Photoshop test, only one printer received an excellent score: the 600-dpi-only Hewlett-Packard. Its images had the best dynamic range, contrast, and detail, although the output still wasn't as good as that of a cheap ink-jet.

The models capable of printing at 1,200 dpi earned "acceptable" ratings, at best. They tended to produce lackluster, often muddy images. The Lexmark fared worst in this category, producing a rather noisy, flat image.

Most models did a fine job of printing a Microsoft Excel 98 graph. Only the NEC (at 1,200 dpi) and Minolta (at 600 dpi) rated "poor"—the former for its low contrast and the latter for its slight graininess.—BEN LONG

Color Laser Printers Compared

COMPANY	PRODUCT NAME	MOUSE RATING		E CONTACT	MAXIMUM DPI	PAPER CAPACITY	DUPLEXING	RAM (IN MB)	COMMENTS
Brother	HL-2400CeN	***1/2	\$2,499	800/276-7746, www.brother.cam	2,400	250	manual	32	Very gaad image quality at 600 dpi; harizantal artifacts at 2,400 dpi.
Hewlett-Packard	Calar LoserJet 8550N	***	\$5,549	800/752-0900, www.hp.cam	600	1,100	autamatic	64	Greot imoge quality; huge paper capacity; fast; anly 600-dpi output.
Lexmork	Optro C710	尊章章	\$1,929	888/539-6275, www.lexmark.cam	1,200	250	aptianal	32	Inexpensive; slaw at 1,200 dpi; poor image quality.
Minolto	magicalar 2200EN	等等1/2	\$3,299	800/523-2696, www.minalta-qms.com	1,200	500	aptianal	128	Fast; excellent text quality; paar image ond graph quality at 600 dpi.
NEC	SuperScript 4650N	9494	\$1,999	800/632-4636, www.nectech.cam	1,200	250	manual	96	Excellent price/perfarmance ratia; gaad image quality; daesn't suppart 100BaseT netwarking.
Xerax	Tektranix Phoser 750DP	***1/2	\$4,055	800/835-6100, www.tektranix.xerox.cam	1,200	250	autamatic	128	Very gaad image quality; very fast; expensive.
	Tektronix Phaser 850DP	***	\$3,710	800/835-6100, www.tektronix.xerax.com	1,200	200	outamatic	64	Reasonable autput quality; slaw; expensive.



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DV Camcorders

Latest Models Have Smaller Cases, Bigger Potential



MACWORLD'S BUYING ADVICE:

Choose your version of heaven: at the low end, the tiny, inexpensive Canon ZR10 is nearly irresistible. With their superior pictures and much higher prices, the Canon Optura Pi and the Sony DCR-TRV11 are in a different class. If you have old footage to reincarnate as DV, the Sony's analog converter gives it a substantial edge; if not, go for the Optura Pi's stunning color and noninterlaced stills. Then hook up the FireWire cable—and be glad you're alive to see the dawn of the DV revolution.

pple gave us iMovie, Final Cut Pro, and FireWire jacks, but that's only half of a DV filmmaking setup. Buying the last component a digital camcorder—is up to you.

Fortunately, the current crop of camcorders is positively drool-worthy—sleeker and more compact than ever. All of them capture life with breathtaking color fidelity and twice the resolution of VHS tape, and all take commands from a FireWire-equipped Mac without a whimper.

For this roundup, we looked at the most recent entry-level mini-DV camcorders from several top manufacturers: Canon, Panasonic, Sharp, and Sony. These competing models have more similarities than differences.

The Feature Bandwagon

The most welcome 2000-model development is that, on every model except the Panasonic PV-DV200, the camera is now the battery charger. The power cord runs the camcorder when it's on and charges the battery (which stays on the camcorder) when the unit is off. This arrangement may seem obvious—Mac laptops have worked that way for years—but it sure beats the take-the-battery-off-to-charge-it scheme of previous models.

Most of these models come with a remote control, handy for filming yourself or for playing footage on TV. Each offers an LP mode that ekes out an extra 30 minutes from each 60minute DV tape, a stabilizing feature that irons out small handheld jiggles, and a color LCD screen. Every model also has an array of special-effects and superimposed-text features, which you should avoid at all cost; not only do they permanently mar your perfectly good footage, but they also look Neanderthal next to the gorgeous effects and titling features of iMovie and its ilk.

The ads gush about these camcorders' still-photo features, but it's hard to understand why; in most cases, the Photo button simply freezes the frame for six seconds on the tape. If you've got iMovie, you don't care; it can capture any frame, even from moving footage. Worse, continues





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when transferred to your Mac, the images have feeble resolution—640 by 480 pixels, tops—and produce the telltale striped effect of standard TV's interlaced video signal. (Canon's Optura Pi at least offers a feature called *progressive scan* that eliminates this unfortunate banding.) Even the cheapest digital still camera takes better pictures than the best digital camcorder we reviewed.

Ergo, Ergonomics

The Sharp ViewCam VL-SD20U looks like the Sharp ViewCams that came before it: a swiveling two-part box. It lacks an optical viewfinder, so while filming you're forced to watch the 3-inch LCD that fills the back panel. This quirk makes you more aware of your framing, lighting, and other aspects; on the other hand, you worry about scratching that exposed LCD.

The ViewCam offers the biggest, most conveniently placed controls of any camcorder in this roundup. And the price—\$700 on the street—is among the lowest of all DV camcorders. Unfortunately, Mac fans may grow annoyed at the slim black band that shows up at the bottom of the footage when it's transferred to

iMovie; they may also miss an analog input, which lets you transfer your old VHS, 8mm, and Hi-8 footage to a DV tape and from there into the Mac.

The Canon ZR10 has its own radical design feature: at 2 by 3 by 5 inches, it's delightfully tiny. (Note, however, that tininess limits a camcorder's zoom capacity and LCD size.) Surprisingly, it's also inexpensive (about \$750 street) and rich with features, including VCR controls on the side opposite your hand, a crispsounding speaker, and analog input.

Canon's Optura Pi (\$1,300 street) is a larger, more expensive, state-of-the-art machine. It offers Canon's exclusive optical image stabilization, which uses a prism arrangement instead of electronics. (The two approaches are nearly indistinguishable, but electronic stabilization can add twitches to very still scenes that have strong horizontal elements.)

You can outfit the Optura with a broad array of add-on lenses, filters, lights, and microphones. Its sole design gaffe: you have to open the LCD to get at the VCR controls.

Top and Bottom

The surprising laggard of our sample

was the Panasonic PV-DV200. It's inexpensive (\$720 street), but the features are so 1999: a tiny 2.5-inch LCD, a battery that must be attached to the AC adapter for recharging, no analog input, and a black-and-white eyepiece. (Another \$100 or so buys you the PV-DV400, which at least has a 3-inch LCD and a color viewfinder.) You do get an 8MB, proprietary multimedia card for still images, but the transfer software is for Windows only.

At the opposite extreme is Sony's DCR-TRV11 (\$1,100 street). Unfortunately, it uses a Memory Stick to hold low-res digital pictures—a feature that's of little value to Mac DV fans. Otherwise, it's beautifully designed and offers most of the juicy specs of its rival, the Optura Pi. The killer difference: the analog input on this year's Sony models. It performs real-time conversion of the signal from your older analog camcorder or VCR, pouring DV directly into your Mac—no need to copy it to DV tape first. This breakthrough feature saves Mac moviemakers hours and hours of dubbing time, not to mention the \$400 cost of a Sony Media Converter.—DAVID POGUE

DV Camcorders Compared

COMPANY	Canon		Panasonic	Sharp	Sony
PRODUCT	Optura Pi	ZR10	PV-DV200	ViewCam VL-SD20U	DCR-TRV11
MOUSE RATING	****	***	**	***	****
LIST PRICE	\$1,799	\$999	\$999	\$999	\$1,399
CONTACT	800/652-2666, www.canondv.com	800/652-2666, www.canondv.com	800/211-7262, www.panasonic.com	800/237-4277, www.sharp-usa.com	800/222-7669, www.sel.sony.com
LCD SCREEN (IN INCHES)	3.5	3.5	2.5	3	3.5
ANALOG INPUT	Yes	Yes	No	No	Yes
MAXIMUM BATTERY LIFE*	3:35	4:25	2:50	3:30	11:30
OPTICAL/DIGITAL ZOOM**	12×/48×	10×/200×	18×/300×	10×/100×	10×/120×
REMOTE CONTROL	Yes	Yes	Optional	Yes	Yes
PROS	Optical stabilizer; no interlacing of still images; big screen.	Tiny and sleek; feature rich; inexpensive; big screen.	Inexpensive; feels nice in spite of bulk.	Dirt cheap; the easiest camcorder to use.	Rock-solid design; real-time analog-to-DV converter; big LCD.
CONS	Odd button placement.	Records its own sound in quiet scenes; picture is weak in low light.	Black-and-white viewfinder; tiny LCD screen.	Hidden DV jack; LCD always exposed; no analog input.	Memory Stick feature is of little value.

^{* (}in hours:minutes) With purchase of optional long-life battery.

^{**} Optical is the useful number; digital zoom distorts the picture.



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BBEdit 6.0

Excellent Text Editor Gets

Mixed-Bag Update

he Web has changed a lot—as have the tools used to create Web sites. Bare Bones Software's BBEdit text editor has long been a favorite of Web developers, thanks to its impressive array of text-editing and code-building tools, and version 6.0 adds several productivity-enhancing features for generating static and dynamic Web sites. While BBEdit is an impressive tool that deserves its devoted following, the latest update mixes solid new features with some serious drawbacks.

Beneath the Surface

BBEdit 6.0's interface appears to be only slightly modified from previous versions; the most visible difference is in the code. HTML tag attributes and the values for those attributes appear in colors different from those of the tags themselves, and you can modify those colors by setting a preference. Version 6 supports not only HTML but also the new WML standard for portable devices and XHTML 1.0.

With this update, BBEdit users have even fewer excuses for sloppy

A Sile Path : Per

Color-Coded BBEdit 6.0's text coloring and glossary can boost your productivity.

markup: the Document Type tag offers a greater range of preset values, and the Head Elements tools provide improved menus for setting your document's Meta properties for keywords and character sets. Unfortunately, there's still no way to update Document Type Declarations as Web standards get updated. Nor is there a way to check syntax in Cascading Style Sheets, and the Tag Maker doesn't handle styles.

Other useful new features include an improved multifile find-andreplace feature that filters files based on multiple criteria, and support for Mac OS 9's Keychain when opening files via FTP. Users who deal with multibyte text can finally use BBEdit, thanks to added support for Unicode text files and multibyte characters.

Script Schism

BBEdit's strong AppleScript support makes it a great all-purpose text tool, and that support is even better in version 6.0: not only can you script BBEdit, but you can also "record" scripts by taking actions in the pro-

gram. In addition, you can attach an AppleScript to any of BBEdit's menu items, right down to the Quit command. This trick lets you modify or even entirely replace any BBEdit command you want. But there's one big trade-off: many scripts written for previous versions of the application aren't compatible with 6.0.—JASON SNELL AND LISA SCHMEISER

BBEDIT 6.0

Rating: ####

Pros: Full-featured HTML tools; impressive array of text-editing features; improved AppleScript support; Unicode support.

Cons: No way to update Document Type Declarations; weak Cascading Style Sheet support; scripting incompatible with previous versions.

List price: \$119; upgrade, \$39

Company: Bare Bones Software, 781/687-0700,

www.barebones.com

MACWORLD'S BUYING ADVICE:

Make no mistake: BBEdit is the best text editor available for the Mac, and no Mac-based coder should be without it. This update's new features probably make it worth the \$39 upgrade fee, but it's still not as comprehensive as it should have been. And if you rely on AppleScript to work with BBEdit, you'll need to decide whether the new features are worth the effort required to make older scripts compatible with BBEdit 6.0.

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Palm VIIX

Wireless Handheld Provides More Storage,

Better Service Rates

Ithough the original Palm VII debuted more than a year ago (Reviews, September 1999), the comparatively stocky device is still the only handheld on the market with built-in wireless Internet access. Sure, other units have become slimmer (Palm V) or more expandable (Handspring Visor), but no other offers a pleasant little chirp to indicate that you're online when you lift a flexible antenna. With the recent release of the Palm VIIx, Palm fills out the ahead-of-its-time organizer with more memory, the latest version of the Palm OS, and better pricing plans for Internet access.

Room to Breathe

With 8MB of memory, the VIIx is in line with the rest of Palm's top-tier handhelds—the Palm Vx and Illc. This allows you to store more information and more Palm Query

Wireless Freedom The Palm VIIx gives you mobile access to e-mail and the Web.

Applications (PQAs), with which you can access Internet data via the Palm.net wireless service. Unlike desktop computers with conventional Web browsers, the Palm VIIx employs these small applications to retrieve snippets of information, called Web clippings. A small collection of PQAs come preinstalled, including those for news and stock prices. You can download others for free from the Palm.net Web site (www.palm .net). E-mail access hasn't changed: you can CC your regular e-mail to your Palm.net address, or you can send and receive mail directly from POP e-mail accounts by means of third-party software.

The monthly fee for Palm.net service has come down since the first Palm VII release. Prices range from \$10, for 50K of data (additional kilobytes cost 20 cents each), to \$45, for

> an unlimited-volume plan, a welcome change for frequent users. The service is provided in 260 U.S. metropolitan areas, so make sure you're on the coverage map before you sign up.

> Unfortunately, the Palm VIIx still doesn't include Macintosh software or a Mac cable adapter in the box, so you'll have to purchase Palm's serial adapter (\$15) or USB kit (\$40). However, you can download the Macintosh Palm Desktop software for free.—JEFF CARLSON

PALM VIIX

Rating: ####

Pros: 8MB of memory; Palm OS 3.5; unlimited Internet-access plan.

Cons: Service areas still limited; relies on Palm.net for e-mail; no Mac software or adapter included.

List price: \$449, plus monthly service fee.

Company: Palm, 800/881-7256, www.palm.com

MACWORLD'S BUYING ADVICE:

If you need wireless Internet access in a single, portable device, the Palm VIIx is the handheld to buy. The added memory gives you enough space to store a lot of personal information, Palm Query Applications, and other Palm software.

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It is the time of empires and armies, of countries and conquests. The world is at war and you are in command of an army fighting for global domination. Organize your forces in a ruthless campaign to crush your enemies and take their territories in this fast-paced game of strategy, negotiation and luck.









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"...virtually any family member can enjoy the game, it's a must have for strategy fans, and action fans would find it hard to resist Risk II's addictive gameplay."

— Mac Central —



www.wizardworks.com/macsoft/

Finale 2001

Powerful Notation Program's New Features

Aren't Compelling

very 18 months or so, Coda Music Technology releases an \$80 to \$120 upgrade to Finale, its venerable music-notation program. Some of these upgrades—the leap from Finale 98 to Finale 2000, for example—have enhanced the program in very significant ways. Others, such as the recently released Finale 2001, offer improvements that look great on paper but are less spectacular in practical application.

Despite the largely lackluster new features, however, Finale remains the Mac's premiere notation application. Whatever type of score you're creating-choral, orchestral, classical, pop, or jazz—Finale is likely to provide all the tools you need (perhaps far more than you need) to produce professional-looking results.

Leader of the Band

Coda has changed few of Finale's notation-creation capabilities in the 2001 edition. The improved Setup Wizard makes it easier to lay out a score's foundation, and Finale is now smarter about fitting music systems onto the page. But most of the



Scant Scanning The results of Finale 2001's MIDIScan feature leave much to be desired.

changes introduced in this upgrade focus on getting music into and out of the program.

For example, Finale 2001 includes MIDIScan, an optical character recognition (OCR) component that allows you to import scanned, printed scores as editable notation. But even with uncomplicated scores, the resulting file is a barely recognizable mishmash of notes. Fortunately for those interested in OCR, Finale can import files produced by a more capable program, Musitek's Smart-Score (Reviews, December 1999).

A more functional new feature is MicNotator, which lets you place notes in a score by playing single pitches into a microphone attached to your Mac. When we used Apple's PlainTalk microphone to record a melody from a recorder, Finale notated it with about 80 percent accuracy. An instrument with less-variable pitch, used in conjunction with a better-quality microphone, would likely produce even better results.

Coda has also added commands for exporting Finale files directly to

> the Web via Coda's Finale Showcase and the Net4Music Web site, where you can upload your scores for \$7 each. By the time you read this, Coda should be distributing Finale Viewer, a free plug-in for viewing, playing, transposing, and printing Finale files saved as Web pages.—CHRISTOPHER BREEN

FINALE 2001

Rating: ####

Pros: Comprehensive notation program; improved Setup Wizard.

Cons: Mostly unexciting new features; MIDIScan feature works poorly.

List price: \$545

Company: Coda Music Technology,

800/843-2066. www.codamusic.com

MACWORLD'S BUYING ADVICE:

Finale 2001 is a great choice for people seeking the most comprehensive notation application available for the Mac. Finale 2000 users, however, already have the program's best elements and may find the upgrade's new features unnecessary.

Nisus Email 1.0

Pros: Easy mail sending; adds e-mail abilities to almost any program.

Cons: Poor addressing; relies on the Finder for mail management; rudimentary filters.

List price: \$30

Company: Nisus Software, 800/890-

3030, www.nisus.com

Macworld's Buying Advice:

If you've ever had a burning desire to use your word processor to write all your e-mail messages, and if your e-mail needs are relatively light, Nisus Email is for you. The rest of us, especially those who must deal with lots of mail and many recipients, will find the program underpowered.

pholding Nisus Software's proud tradition of nontraditional software, Nisus Email 1.0.9 won't be for everyone, but it could build a fanatical following. Nisus Email does not supply the usual mail folders and mail-composition window; instead, a tiny Floating PO window appears in whatever program you're working in. You compose your e-mail message in a word processor or other program and drag it to the window. A new window appears, with icons representing contacts in your address book. When vou click on a contact's icon, you're back in your word processor, and the mail is sent. No other program makes sending mail this easy.

But if you have hundreds of contacts, scrolling through icons to find

one is cumbersome. And the program's filters can move incoming mail to a folder only based on keywords; there's no categorization, prioritizing, or other automated actions. Each message is archived as a separate text file in folders you create. Nisus Email depends on the Finder to manage potentially thousands of files—never the Finder's strong suit. To find content in archived messages, you must rely on Sherlock.—TOM NEGRINO



Mailbox Forest Finding a contact's icon in Nisus Email can be a challenge.

Dishibly than



1999 Macworld Editors' Choice Awards Winner, Utility Software. 'DiskWarrior is an excellent ax to add to your disk-repair and -maintenance arsenal DiskWarrior's ease of use, speed, and new method of fixing disk problems make it a powerful disk-maintenance product."



1999 MacUser Awards
Best Utility/Enabling Software.
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use, safer, and often more successful alternative to more bloated recovery applications, the

judges felt DiskWarrior deserved top billing...





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MindControl 1.1

Rating: 🕴 🛊 🛊

Pros: Opens any item from the keyboard.

Cons: Limited keystrokes to invoke command list.

List price: \$20 (download only)

Company: MindVision Software,

402/477-3269,

www.mindvision.com

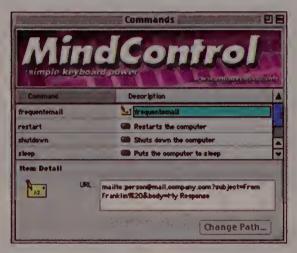
Macworld's Buying Advice:

Although MindControl is superfluous if you already own a macro utility such as CE Software's QuicKeys (Reviews, April 2000), other Mac users will find it a worthwhile addition.

ans of keyboard shortcuts will love MindControl, a clever utility that lets you open files and perform other operations without lifting your hands from the keyboard. When you press a defined key combination, MindControl displays a pop-up list of all the commands you've programmed it to carry out. You can cycle through the list using the arrow or tab keys, or you can type the first few letters of any command into a text box at the bottom of the list. When you've highlighted the command you want, press the return key to run it.

You can program MindControl to open nearly any item on your Mac or network; it also lets you open Web pages and compose e-mail. Mind-Control's repertoire includes basic

functions such as restart and shutdown, and its ability to open Apple-Scripts further extends its functionality. You can specify the keystrokes that activate MindControl, but you have only four key combinations to choose from.—FRANKLIN N. TESSLER



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Industrial design saftware

\$\$\$1/2 **Angel Egg** \$\$\$1/2 **Golden Logres**

Pinball games



Back-UPS Pro 500



Rating: 👯 🛊

Pros: Pravides extra running time when pawer fails.

Cons: Nat enaugh sackets far

AC adapters.

Company's estimated price: \$180

Company: American Pawer Canversian, 800/800-4272,

www.apc.com

Macworld's Buying Advice:

Like fire insurance, the Back-UPS Pra 500 might seem like a waste af maney—until disaster strikes. Then it's warth its weight in gald.

No matter where you live, power failures and brownouts are unavoidable. When the electricity stops, the Back-UPS Pro 500 lets you keep your Mac and as many as three peripherals going for 20 minutes, long enough to let you save your work and shut down safely. Seven grounded power outlets supply automatic voltage regulation and surge suppression; four of them also provide battery backup. (Unfortunately, you can't plug more than one power transformer into a backup outlet without obstructing an adjacent outlet.) If you're running OS 9.0.4 on a Mac with built-in USB, the included control-panel software automatically saves open documents and shuts down your Mac before the battery runs out.-FRANKLIN N. TESSLER

Rating: ####

Pros: Useful taals; intuitive interface;

sample scripts.

Cons: Requires CD ar Internet

validatian ta launch.

List price: \$269

Company: Screenplay Systems,

818/843-6557,

www.screenplay.com

Macworld's Buying Advice:

Mavie Magic Screenwriter 2000 is a warthwhile investment far anyane interested in writing far the screen, the stage, ar televisian.

Do you often have great ideas for movies or television shows? Movie Magic Screenwriter 2000 is a word processor with specific commands that format scripts for television, the stage, and the screen. The program is packed with helpful tools, including a character-name bank, a thesaurus, and a chat feature that lets you work with a remote partner. Movie Magic also keeps track of drafts and alerts you if you start working on an old version of your script. The program also includes example copies of produced scripts.

Its only flaw is minor—for copy protection, you must insert the CD-ROM or validate the program over the Internet each time you launch Movie Magic.—ADRIENNE ROBILLARD



The Game Room



ith your permission, sensation seekers, this month I'm going to recklessly abuse the power of my office to settle a personal score. Yeah, I don't like it any more than you do. My mandate as a columnist is to serve

you, the readers, and until now I've lived a life of such exhausting purity that the Catholic Church keeps sending me junk mail telling me I'm preapproved

for beatification and a Vatican Platinum card with a heavenly introductory APR of 5.9 percent.

(Granted, there was that year I exploited my contacts in the industry to gather insider information about a publicly traded company, information I then parlayed into an enormous financial windfall through a focused campaign of writing misleading and deceptive editorials and articles and spreading strategic disinformation to other insiders and members of the media. But in my own defense, this was back in 1998, for heaven's sake; and if the fact that the Securities and Exchange Commission settled my case without insisting on jail time isn't enough to convince you of my innocence in the matter—well, I don't know what to tell you.)

So I'm going to cash in on that goodwill now and direct this column to one specific reader, a kid I met recently in Ann Arbor, Michigan. I was in town for the MacTechnics user group's annual meeting. For a cozy 90 minutes I inflicted on the auditorium listeners my thoughts about Mac OS X and why all software should embrace the principles of open-source code, and a rundown of my favorite *Babylon 5* episodes, and then I opened the floor to questions.

The kid asked me about the future of Mac gaming. I explained that while we weren't out of the woods yet, for the first time in ten years we finally had very tangible

cause for optimism. He asked, "But what about console games?" And I didn't want to embarrass the boy for his lack of experience and sophistication, you know? So I just said, "Well, what you have to understand is . . . the thing about the PlayStations and the rest . . . um . . . in this sort of marketplace . . . ," and after a thoughtful pause of some minutes, I finally asked if anyone wanted to see my wrist-computer again.

You see, I made the critical mistake of actually thinking about the question, which is always fatal when you do a Q&A. Arrogance, technical acronyms, and speed are all you need, provided you move on to the next question quickly enough.

It was such a good question, though. There are a lot of reasons to think the Mac has a great future in gaming. Year 2001 will mark the arrival of a boatload of next-generation games, such as Oni. In 2000 we saw ATI's Radeon card and 3dfx's Voodoo 5 card introduced for the Mac. That's a killer development—not just because of the cards' ability to put pixels on the screen and your bladder's contents on your seat, but also because it means we've finally got real competition in this field.

Here's what 2001 will bring in the realm of console games: Sony's PlayStation II and a new Nintendo box code-named Dolphin. Each one has enough raw continues

graphics-crunching power to suggest you can't play them without setting off garage-door openers and car-security systems all over the neighborhood.

Sony's DVD-based system has a so-called "Emotion Engine" chip similar to those on Silicon Graphics workstations. The basic design is so powerful and flexible that Sony showed off a sort of super-PlayStation at last year's Siggraph show. It'll be a graphics workstation featuring 64 processors in parallel and the ability to render near—cinema-quality graphics in real time at 60 frames per second (fps).

Nintendo has a cube-shape system based on PowerPC technology.

The GameCube's chipset is so intimately linked, you could argue convincingly that it's all a single graphics circuit. Gaming site ign.com reports that developers are having no problem getting 9 million polygons at 60 fps out of their seed prototypes. Trust me, that translates to a whole lot of blood and flying body parts.

Which is all very nice, of course. I especially like the idea of Nintendo marketing a digital product that borrows the Cube's name and shape. It's been a while since Apple has made any real money off those Wile E. Coyotes in its lawsuit division.

Though it's nearly impossible to compare desktop and console video hardware directly, it's clear that Radeon and Voodoo 5 could hold their own.

Consoles benefit from both high-performance silicon and the minimal overhead of a games-only system. Graphics cards benefit from some of the lessons and examples of desktop graphic standards, which are constantly evolving and improving. All told, it's a draw.

But let's say you're sitting here with a G3 or G4 Mac and the desire to make it work as well, in effect, as a console. Well, one of those cards will cost you about \$300. Add another \$50 for a proper game controller (not the least of the PS2 and GameCube's features are powerful controllers with enough buttons, pads, and sticks to kick up any category of game).

So your Cutting-Edge Game Upgrade cost you \$350. Incidentally, you also acquired a boatload of enhancements that will increase performance here and there outside game space—particularly if you're involved in digital video—but let's forget that for now. How much will it

eventually cost just to go out and buy a PS2? Best guess: \$300. A GameCube? Nintendo wants to undercut Sony, possibly by as much as \$100. And the PS2 will do doubleduty as a DVD player.

In all honesty, it's just not feasible for a Mac—or a Wintel box, for that matter—to compete with a game console. It's an entirely different culture of hardware and software devel-

opment, one that focuses all monies and all resources

on ensuring that when blade strikes neck, blood spurts in the most lifelike

and satisfying manner possible.

But even when we acknowledge all of that, it's clear that truly sophisticated games require more than raw processing power. They require OS-level resources. Overall, a Mac might not be a better machine if

you just want to fly, shoot, hack, and

slash. But if you're looking to fly, think, shoot, deal with a wholly unexpected development, go off on a seemingly unrelated tangent, and then hack and slash, a desktop is tops.

Finally, this is indeed a great time to invest in your Mac as a gaming platform.

Microsoft recently acquired Bungie, and immediately thereafter Bungie announced that it now has enough resources to publish all of its future titles for both the PC and the Mac.

Cube Envy Hmmm. A cubeshape gaming machine from Nintendo. How interesting.

SAMECUBE

And with the arrival, finally, of a true Mac gaming juggernaut, United Developers has chosen to beef up its

Mac catalog by acquiring MacSoft.

We have an Apple that is betting on open gaming standards, we have competition in gaming hardware—and at last we have two big companies that are determined to do well in the Mac games market. So hold off on the GameCube, kid. Buy the best controller you can afford right now. Budget for a new graphics card at the end of the year in case the games you play between now and then blow you away to such an extent that it loosens your purse strings. It is a good time to kill and a good time to die. **m**

If ANDY IHNATKO's next-door neighbor were to get a life, he wouldn't be so obsessed with what time it is when Andy plays his stereo real loud.

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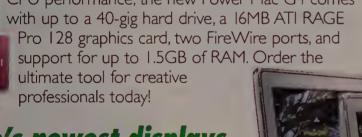
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500MHz	12.0GB Ultra ATA-33	128MB	1.0MB L2	DVD-ROM	2 Ports	56K	128-2X AGP	128MB	#116009	\$3094.98*
New 500MHz	20GB Ultra ATA-66	128MB	1.0MB L2	DVD-ROM	2 Ports	56K	128-2X AGP	128MB	#124942	\$3094.98*

Business Lease Available: 36-month, fair-market value lease based on approved credit. Other leasing options available. Leases require a minimum order of \$1000. Call 1-800-611-9751 for details. *After \$200 Apple rebate. **Your choice of up to \$200 instant rebate or up to 128MB FREE memory. Call for details.



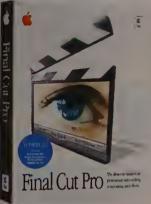
Credit cards are not charged until the order is shipped. Most products ship the same day (barring system failure, etc.). Shipping options include Ground, 2nd Day and Overnight belivery. Freight is based on average product weight. Handling extra. Insurance available. Special orders may require special shipping and handling charges. Call for international shipping rates. Prices and product availability subject to change without notice. Specials and promotions may be limited to stock on hand. Not responsible for typographical errors. All products sold by Multiple Zones International (MZI) are third party products and are subject to the warranties & representations of the applicable manufacturers, notluding but not limited to Y2K compliance. Accordingly, MZI makes no representation or warranty with respect to Y2K compliance of product sold. ©2000 Multiple Zones nternational Inc. All rights reserved. Unauthorized duplication is a violation of applicable laws. Apple, the Apple logo, Macintosh* and PowerBook* are registered trademarks of the Apple Computer, Inc.

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Desktop movies to go.



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item #124976

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Asanté FriendlyNet 7108 8+1 Gigabit Switch



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Lifetime warranty Asanté FriendlyNet 8+2 Switch



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Includes built-in

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Single w/4 CD-Rs

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Stylus Color 777 Printer

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HP DeskJet 935c **Color Printer**

- USB compatible only
- 9ppm blk; 7.5ppm color
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- Compatible with Apple StyleWriters and personal LaserWriters
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\$**79**⁹⁹

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Canon

Canon ZR-10 Digital **Video Camera**

- 10X Optical/200X Digital Zoom
- Image stabilizer
- 2.5 LCD screen

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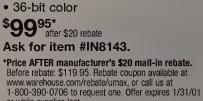


Olympus D-460 Zoom **Digital Camera**

- 3X optical zoom
- Up to 1280 x 960 dpi

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UMAX Astra 2200 Color

• USB and SCSI interface

Orbit USB for Mac

- Designed for iMacs and USB Power Macs
- Fits the natural shape of your hand
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KENSINGTON

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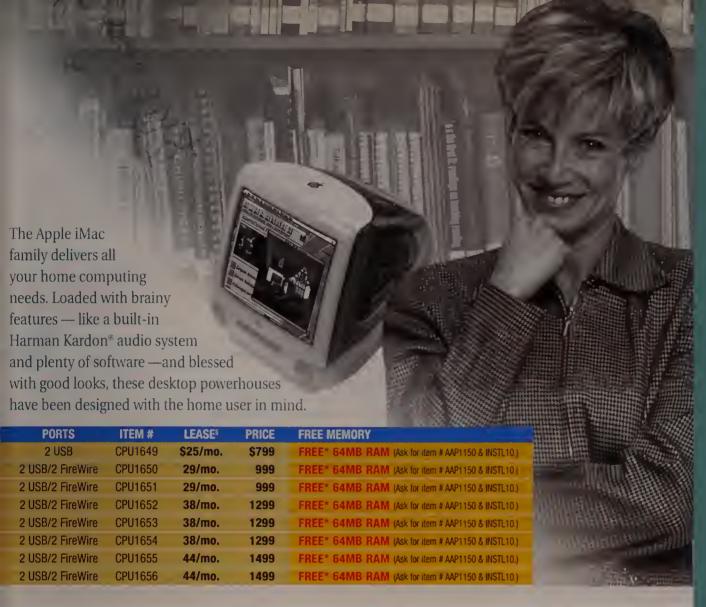
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iDOCK 2 USB MultiPort hub

- Floppy drive
- Swivel Base for iMac
- 4 USB ports
- 2 Serial ports
- 1 ADB port

\$259⁹⁹

Ask for item #DEH4620.



PowerLogix iMac G3 Processor Upgrade

- 500MHz G3 with 1MB Backside Cache
- Installs in minutes
- iForce utility included

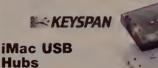
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6 foot USB Cables \$999

Ask for item #DCA4738.



- Color-coordinates with any iMac color!
- Other colors available, call for details

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EtherMac iMac iPrint Adapter with built-in PhoneNet

- Connects your iMac to LocalTalk printers and other Macs
- Easy plug-and-play installation \$9499

Ask for item #DEP1900.

Ethernet iPrint Adapter for StyleWriter, only \$74.99. Ask for item #DEP1739.

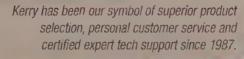
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Power Mac G4s:

Redefining High-Performance

The dual-processor Power Mac G4s deliver the power you need to burn through even the most complex tasks — rendering large images, constructing dynamic Web sites, performing massive scientific calculations and even professional-level video editing. *Check out these features:*

- PowerPC G4 dual-processors up to 500MHz, strengthened by 1MB Backside Level 2 Cache per processor
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- ATI RAGE 128 Pro graphics card with 16MB of SDRAM
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- Easy Wireless Networking Ready for AirPort Base Station (sold separately)

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Single processor / G4 400MHz	64MB / 1.5GB	20.0GB	DVD-ROM	56K	1GB
Dual-processor / G4 450MHz	128MB / 1.5GB	30.0GB	DVD-ROM	56K	1GB
Dual-processor / G4 500MHz	256MB / 1.5GB	40.0GB	DVD-ROM	56K	1GB
Dual-processor / G4 500MHz	256MB / 1.5GB	40.0GB	DVD-RAM	56K	1GB

New Apple Monitors: the perfect complements to G4 power.



Apple 17" Studio Display

- 17" (16" viewable) Natural Flat Diamondtron CRT
- 0.25mm aperture grille pitch
- 1600 x 1200 @ 65Hz maximum resolution
- Built-in two port USB hub
- Designed for optimal reproduction of PANTONE colors
- Theater Mode automatically brightens screen for optimal movie viewing
- Compatible with new Power Mac G4 and G4 cube
- Built-in color calibration

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Ask for item #MON1094.

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15" Apple Flat Panel Display

- 15" viewable display
- 16.7 million colors (maximum)
- 1024 x 768 maximum resolution
- Built-in two port USB hub
- Anti-glare hardcoat
- Theater Mode automatically brightens screen for optimal movie viewing
- Superthin 6.7"(minimum) design
- Compatible with new Power Mac G4 and G4 Cube

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Ask for item #MON1093.



Apple 22" Cinema Display

- 22" viewable display
- 16.7 million colors (maximum)
- 1600 x 1024 maximum resolution
- Displays up to two full pages of text or a widescreen video DVD movie
- Built-in two port USB hub
- Anti-glare hardcoat
- Theater Mode automatically brightens screen for optimal movie viewing
- Superthin 8.3" (minimum) design
- Compatible with new Power Mac G4 and G4 Cube

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G4 power in an 8-inch cube.



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Upgrade

when you buy a dual-processor Power Mac G4.

28MB RAM

Ask for item numbers AAP1 155 and INSTL10.

Installation fee required.

Power Mac G4 Cube

- 450MHz PowerPC G4 processor
- 1MB of Backside Level 2 Cache
- 64MB SDRAM (exp. to 1.5GB)
- 20.0GB Ultra ATA/66 HD
- Built-in 56K V.90 modem
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- ATI Rage 128 Pro Graphics Card with 16MB of Graphics Memory
- NEW! Apple Pro Keyboard and Optical Mouse
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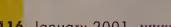
Business Lease only \$52/mo.§ Ask for item #CPU1657.

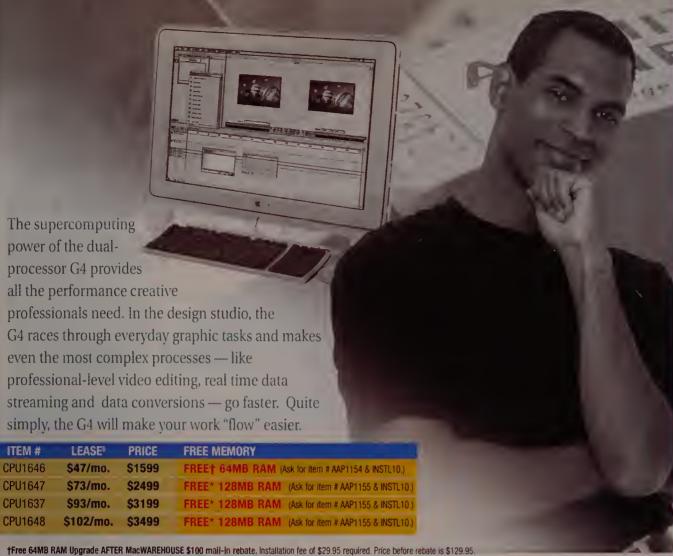
*Price AFTER \$300 Apple mail-in rebate, when purchased with qualifying Apple monitor.

Price before rebate: \$1799. To qualify for rebate, customer must purchase one Power Mac G4 Cube (CPU1657) and one Apple monitor from the left (MON1093, MON1094, MON1095). Offer valid on purchases made from 10/31/00 through 12/31/00. Offer not valid on purchase of reconditioned equipment. Visit www.warehouse.com/rebate/apple for manufacturer's mail-in rebate coupon, or call us at 1-800-390-0706 to request one.









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Gadaptec

Adaptec PowerDomain 2930U Ultra SCSI Adapter

- 20MB/sec. transfer rate
- Internal & external connectors

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RAGE ORION Accelerator

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- 3x Nikkor zoom lens
- 2048 x 1536 ppi resolution
- USB and serial interfaces

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- Digital film for storing pictures
- Compatible with most digital cameras

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QPS FireWire® CD-RW Drive 12 x 10 x 32*

- Blazing 12x record,10x re-write
- FireWire interface

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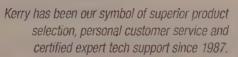
TDK All Speed CD-Rs

•74 min. •650MB

29 c* each, in 100-pack spindle, after \$20 rebate

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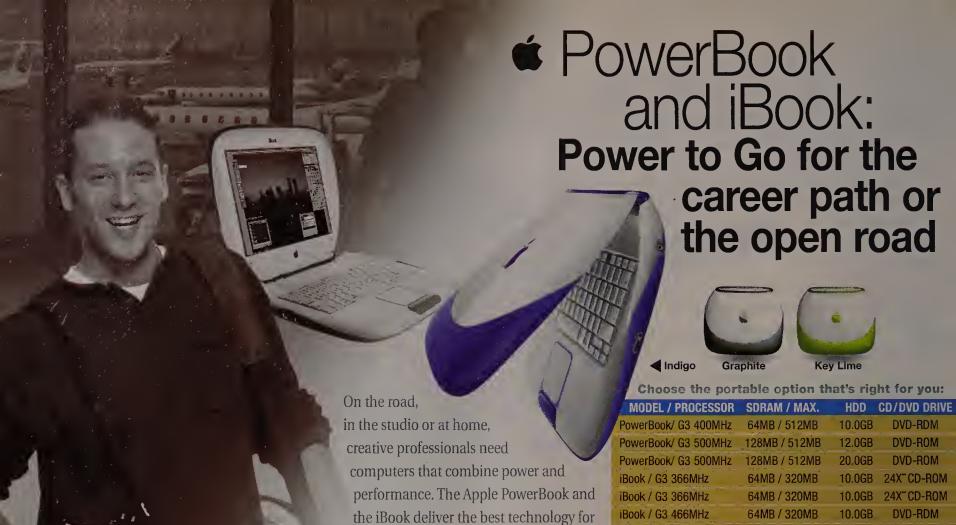
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- 8MB memory 2MB Flash memory
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• Two individual padded

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compartments that measure 11" x 13" x 2.5"

- 1.3 megapixel optical res.
- 2" LCD

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Lithium-ion

64MB / 320MB

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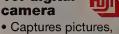
iBook / G3 466MHz

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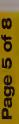
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The PowerBook enables users to create eye-popping multimedia presentations, deliver graphics and photos fast, and even create broadcast quality movies. And when the work is done, you can shift into play gear, slip a movie into the DVD-ROM drive and watch the fruits of someone else's labor.

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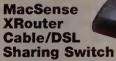
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- Voicemail/Caller ID

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Actual send and receive speeds may vary



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- Up to 2400 x 1200 dpi
- USB compatible

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Black Ink Cartridge, item #PR12829, only \$36.95.

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- 1200 x 2400 optical dpi
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- Prints 10ppm
- 1200 dpi resolution
- HP PostScript Level 2

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- 1200 dpi max. res.

\$1479⁹⁵

Ask for item #PR14947.

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- Prints 16ppm
- Up to 1200 dpi max. res.

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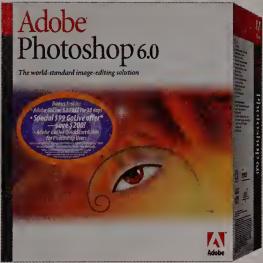
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Cost of Computer and/or Peripherals	Warranty Price (36 months)	Ask for item #					
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(Includes: Photoshop 6.0, GoLive 5.0, LiveMotion, and Illustrator 9.0)

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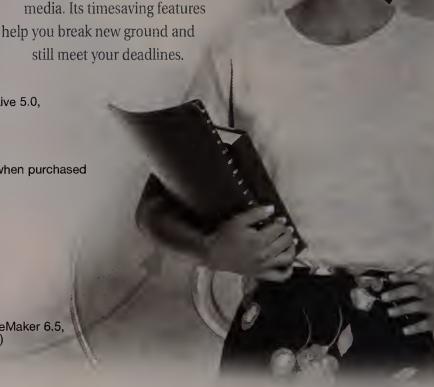


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Adobe® Photoshop® 6.0

software delivers the broadest and most productive toolset available, helping you explore

your creativity, work at peak

efficiency and achieve the

highest quality results across all

The ultimate software for great functionality in any Macintosh system.



New Version.

Upgrade only

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Mac OS 9.0.4

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- Additional FireWire® and **USB** support
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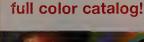
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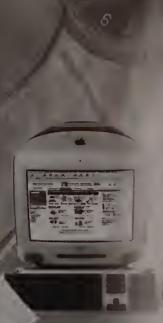
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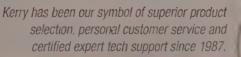
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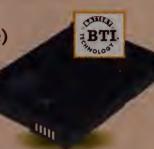






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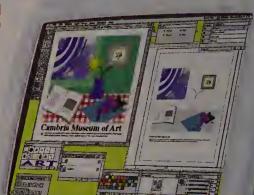
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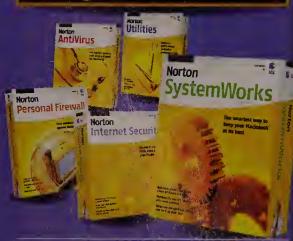
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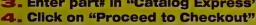


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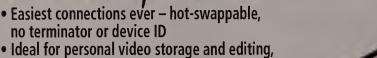
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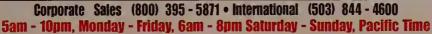
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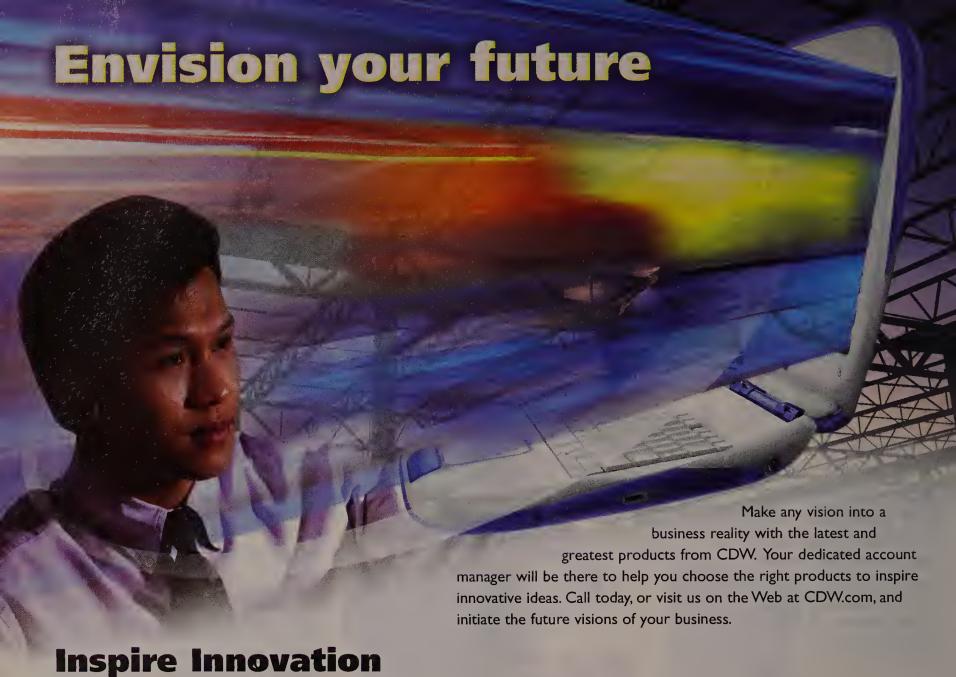












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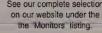


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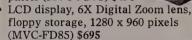
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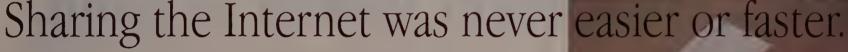
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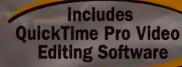
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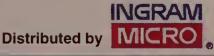








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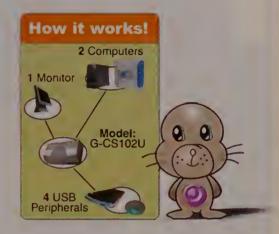
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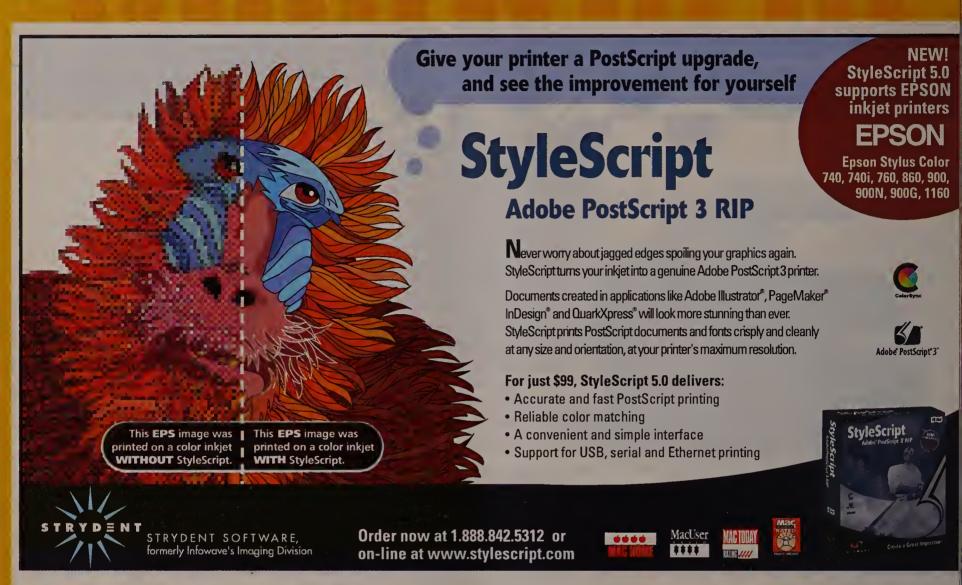
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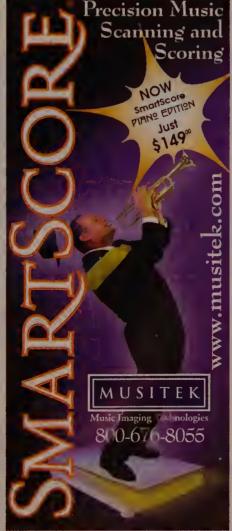


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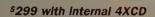
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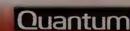
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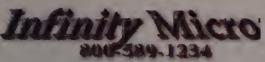
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If you've been looking through the windshield, you can look out a side or back window simply by double-rapping on it. The windshield will disappear, and the window you rapped on will become available. (TIP: By pressing the option pedal as you doublerap a window, you can look through more than one at a time.)

Driving Car OS X

You'll discover that Car OS X gives you an extremely smooth ride; in fact, because it's based on a powerful BSD 32-valve engine, it features full crash protection. Even if bad paving causes another car on the road to crash, you can continue driving Car OS X, unaffected.

Note, however, that Car OS X is crash proof only when you drive on roads that have been specially repaved (Carbonized). Over 200 municipalities worldwide have announced that they'll Carbonize selected streets for Car OS X compatibility.

But you're not limited to driving on Carbonized roads. Our engineers have built a special Classic Car chassis, right into your vehicle, that allows you to drive on any existing road—even those that haven't been updated for Car OS X compatibility.

To use this feature, simply drive your vehicle onto any older road. You may experience a considerable delay as Car OS X prepares the new chassis, which sits on top of the Car OS X chassis. Bear in mind that, on these non-Carbonized roads, you won't enjoy Car OS X advantages such as crash projection: if a pothole or drunken dr ver destabilizes your car, your vehicle may well crash. Even then, however, you don't have to buy a new car; you'll just find yourself back in your Car OS X vehicle, at the intersection from which you first turned onto un-updated roads.

Expiration Date

Thank you for participating in the public test of Car OS X. Please note that Car OS X expires May 15, 2001—if you haven't expired first. m

DAVID POGUE (www.davidpogue.com) is the author of Mac OS 9: The Missing Manual (Pogue Press/O'Reilly, 2000).

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continued from page 164

ongratulations! Welcome to the public test drive of Car OS X. As you know, we at Apple Automotive generally work the bugs out of our new car designs on a private track with crash-test dummies. But now, for the first time, we've decided to let you—our living, breathing public—pay to help us discover the design defects in this brand-new concept car.

We think you'll find Car OS X, even in its prototype form, to be the most attractive, speedy, and stable vehicle available today. If this new design proves successful, we have no doubt that Microsoft Motors will be scrambling to imitate it for years to come.

Before you begin your test drive, read this booklet to learn how Car OS X differs from the cars you're used to (henceforth called *Classic* cars).

Parking Tips

Do not attempt to park Car
OS X until you are sure you can
meet the minimum storage and
fuel requirements. Car OS X
should be filled with
128 gallons of gas,
and it requires a
garage with at
least 5,000
square feet.
(TIP: You can
keep your old
car in the same
garage, but only

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DAVID POGUE

Welcome to Car OS X Public Beta

PAY TO TRY AN UNFINISHED PRODUCT? JUST WAIT TILL OTHER INDUSTRIES CATCH ON

Inside the Car

You may notice that the interior of Car OS X is strikingly clean and bare. We've done away with confusing storage cubbies such as the glove compartment, trunk, cup holders, and side pockets.

Instead, whenever you'd like to use an object inside Car OS X (such as a map, soda can, or food wrapper), simply drag it down onto what's called the *Floor*. Your belongings will remain fully visible on the Floor at all times.

As you put more and more items onto the Floor, previously Floored items move aside to make room. If the Floor gets very cluttered, your belongings will shrink to fit within the Floor's space. (TIP: If you're having trouble identifying an indi-

vidual object when your Floor has become full, simply slide your foot through the items on the Floor. As you disturb the other items lying there, you can rotate the object in question enough to read its label, if available.)

The Car OS X Window-Control Scheme

When he unveiled

Car OS X at the
Carworld Expo
in Detroit last
year, Apple
Automotive's
visionary Chief
Design Officer
Steve Jobs
described the
confusion most
car owners feel
when confronted
continues on page 163

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